

# **Granvista Plus Series**

## **H.264 2-Megapixel Network Camera**

### **GVP-201 / GVP-201W**

### **User's Manual**



**Version: 1.32**

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# Notices

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This user manual is intended for administrators and users of the GVP-201/GVP-201W Network Camera, including instructions for using and managing the camera on your network. The use of surveillance devices may be prohibited by law in your country. It is the user's responsibility to ensure that the operation of such devices is legal before installing this unit for its intended use.

Before the Network Camera is installed, all the safety and operating instructions should be carefully read and followed to avoid damage due to faulty assembly and installation. This also ensures the product is used properly as intended.

## Heed all warnings

- **Do not drop or strike this equipment**  
Sensitive electronics inside the camera are vulnerable to excessive strike.
- **Do not install the equipment near any flames or heat sources**  
Excessive heat could damage this equipment.
- **Do not cover cloth or to install this equipment in poorly ventilated places.**  
Overheating could damage this equipment.
- **Do not expose this equipment to rain or moisture. Do not touch the power connection with wet hands**  
Risk of short circuit, electric shock or fire
- **Do not damage the power cord or leave it under pressure**  
Risk of fire or shock circuit
- **To reduce the risk of electric shock, do not remove the Cover (or Back).**  
No user-serviceable parts inside. Misusage, improper, and negligence could damage this equipment. Need to refer servicing to qualified service personnel.
- **Do not continue to operate if it appears to be faulted.**  
If the unit ceases functioning, contact qualified service personnel for help.
- **Any works related to detailed service or repair of this product should be made by qualified personnel only.**
- **We strongly recommend to use the metal mounting stand, and to screw the bracket/spacer tight for optimal heat dissipation.**



# Introduction

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Both GVP-201 and GVP-201W are of compact and high resolution (1600x1200) Network Cameras featured with superior H.264-AVC performance and multiple functions. They are perfect for indoor applications such as factories, retailer stores, residence, restaurants, hotels, schools and pre-schools, caring centers, etc.

GVP-201's H.264-AVC video compression has significantly lowered down the requirements for bandwidth and storage size without compromising image quality. Motion JPEG and multiple independent video streaming are also supported for even better flexibility.

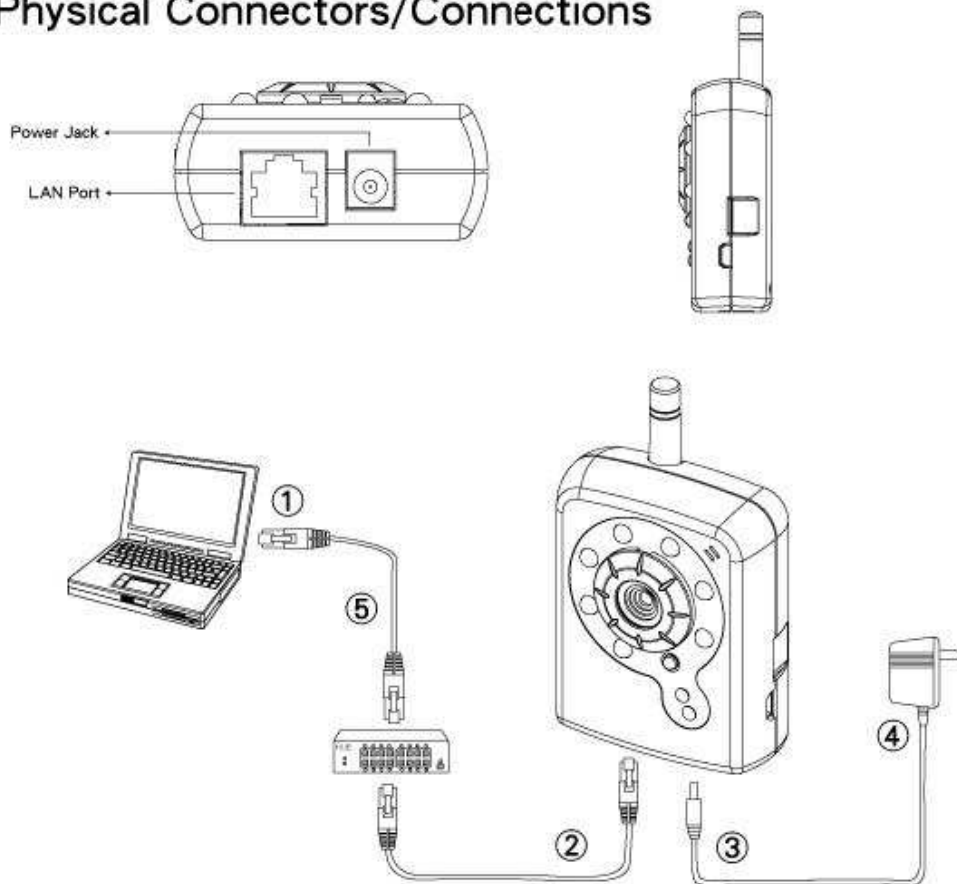
The camera offers wired Ethernet connection to the network and optional wireless connectivity (IEEE802.11b/g) for flexible installations. It includes 7 IR LEDs for illuminating the scene automatically or when requested by the user. Further functions include two-way audio with integrated high-sensitivity microphone and audio output, Micro SD card support and digital PTZ (4X) to focus any location you would like to highlight in the image.

# Installation

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## 1. Hardware Connection

### ★ Physical Connectors/Connections



- ① Prepare a PC with Ethernet link to the network
- ② Connect LAN Port (RJ45) of the camera to a Network Switch/Hub.
- ③ Connect power jack.
- ④ Ensure the power adapter specification matches the power system  
Connect the adapter to the outlet.
- ⑤ Check LED status. (Power/Network)

## 2. Software Installation

The following software is necessary for the proper display and use of the camera from the Web site. The software will be taken from the Software Package CD.

### **IP Installer**

The IP Installer is used to locate and configure Network Cameras and video servers on the LAN. This utility is useful for conveniently configuring the network settings of the device, or for finding a device once the network settings have been modified.

To install the IP Installer, from the Software Package CD UI, select IPInstaller, and then follow the on screen instructions.

### **VLC**

Though not necessary, this can be used for viewing the streaming without a Web browser. Besides, the VLC may be helpful in reviewing the recorded video files in the Micro SD card. Please refer to the appendix II & III for more details on how to install and use the VLC program.

### **XVID Codec**

An H.264 codec is applied for displaying the video stream and playing the recoded AVI files. If the video stream can't be displayed, or the recorded AVI files can't be played on PC by using MPLAYER program, install this software from the Software Package CD. In other words, this XVID Codec allows users to replay the recorded files by using the Windows MPLAYER which many users are familiar with.

## Network Configuration

IPInstaller is a utility that provides an easier, more efficient way to configure the IP address and network settings of the devices. It even provides a convenient way to set the network settings for multiple devices simultaneously by using the batch setting function. Moreover, IP Installer can save the network settings for all devices as a backup and restore them when necessary. IPInstaller is able to help non-professional users to quickly setup their network cameras to work in a professional manner.

### **Preparation before IP Assignment**

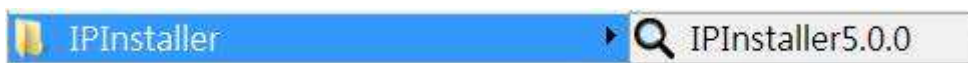
1. Always consult your network administrator before assigning an IP address to your server in order to avoid using a previously assigned IP address.
2. Ensure the device is powered on and correctly connected to the network. This network can be simply a hub, PC and the network camera; and the network camera may directly connect to the PC too.
3. MAC Address: Each device has a unique Ethernet address (MAC address) shown on the label of the device as the serial number (S/N) with 12 digits (e.g. 000429-XXXXXX).



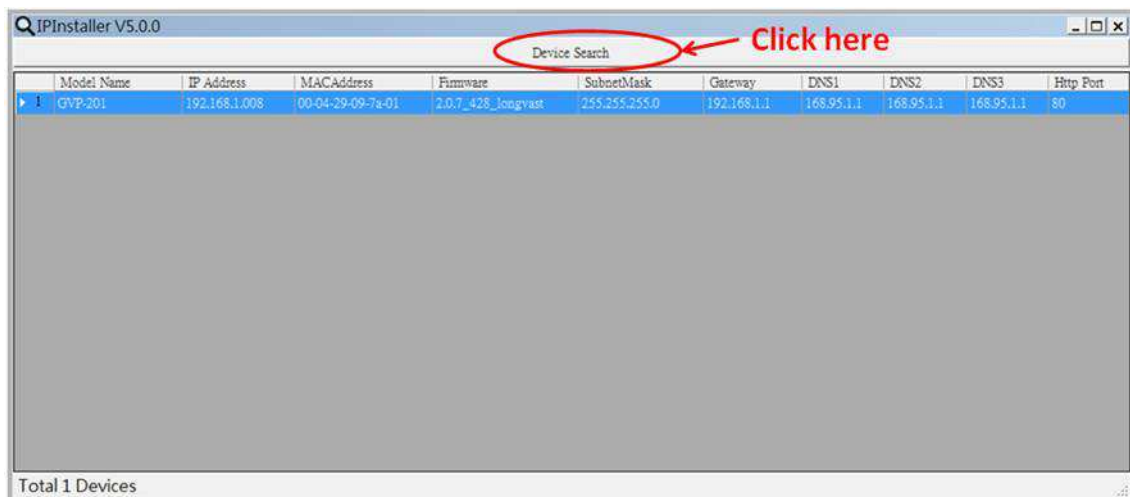
- Although the IPInstaller is able to find and configure any Network Cameras in the LAN except those that are behind a router, it is a good idea to set the host PC to the same subnet. In order to connect to the Web-based user interface of the camera, the host PC must be in the same subnet. For more information about subnets, please consult your network administrator.

#### **Using IPInstaller to Assign an IP Address to GVP-201 / GVP-201W**

- Once IP Installer has been successfully installed on the PC, double click the IP Installer icon on the desktop, or select it from Start > Programs > IP Installer > Launch IP Installer.

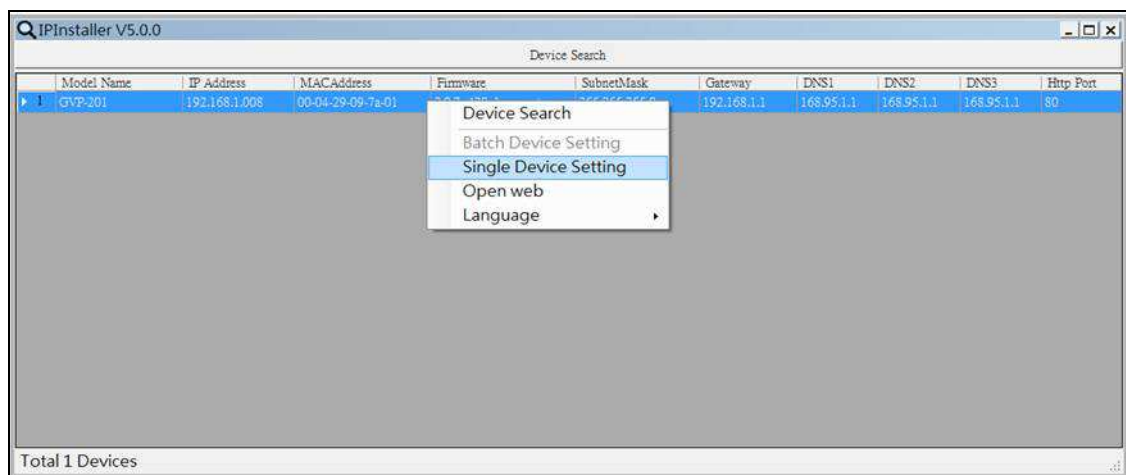


- Click the "Device Search" tool bar and search the device in the LAN.



Please note that the firewalls of your Windows or Anti-virus software might block IP Installer from searching the cameras. In this case you would need to unblock IP Installer software from the firewalls, or to manually make this IP Installer software an exception to the firewalls.

- From the list, select the device with the MAC Address that corresponds to the device which is to be configured. The MAC Address is identical to the unit's S/N (Serial Number).
- Right-click and select the "Single Device Setting" item to open the Property Page for the selected device.



5. After filling in the properties, click [Set] button to complete the configuration settings in the remote device.

**Property**

Device Setting

MACAddress: 00-04-29-07-27-01

Firmware: 2.0.8\_588\_gvp

Property

IP Address: 192.168.1.188

SubnetMask: 255.255.255.0

Gateway: 192.168.1.1

Http Port: 92

DNS1: 168.95.1.1

DNS2: 61.31.1.1

DNS3: 61.31.233.1

Certification

☐ Use Custom

Username: admin

Password: \*\*\*\*\*

Status

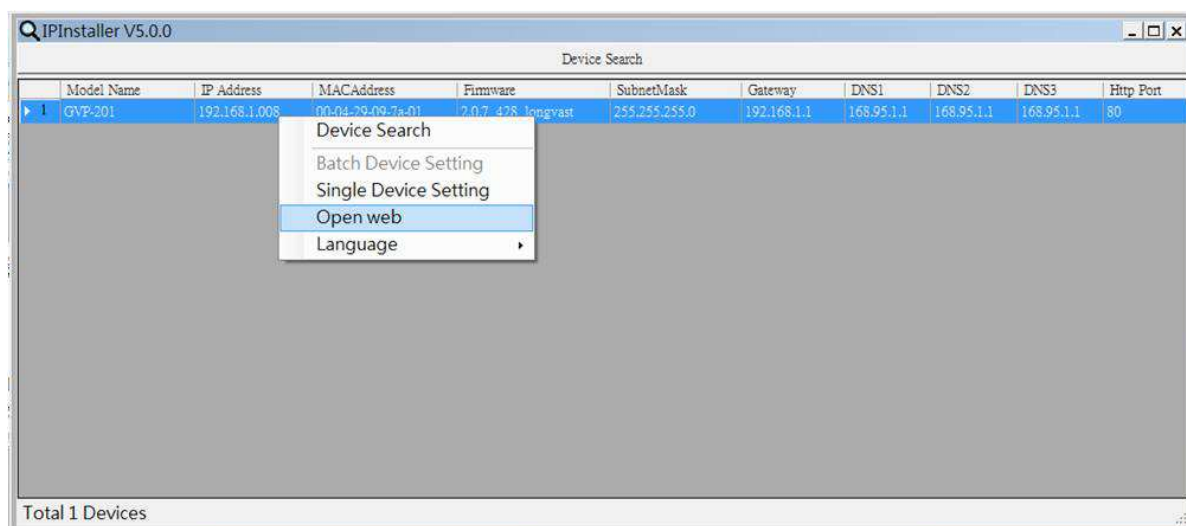


Example about how to know the user's PC and network information from command prompt. Simply type in "ipconfig" in the Command Prompt screen, press Enter, and you will see the related information which shows you the PC's IP, Subnet Mask, Default Gateway, etc.

**The first three numbers of the network camera's IP must be same as the first three numbers of the PC's IP address.** In the above example the PC's IP address is 192.168.1.6., and we have set the camera's IP to be 192.168.1.188. **The network camera IP's first three digits must be the same as the PC IP's first three digits, otherwise the screen can not be displayed properly on the WWW browser.**

#### Open the Web-based UI of the Selected camera

1. To access the Web-based user interface of the selected unit by right-clicking and selecting "Open web" from the slide-bar.
2. If the device has been configured correctly, the default Web browser, the Internet Explorer, will open to the home page of the selected device.
3. If you find your browser is opened and automatically connected to the camera Home Page, it indicates that you've assigned an IP Address to the unit successfully. Now you can close the IP Installer and start to use your camera.
4. Usually the users no longer need to run the IP Installer software again after configuring the cameras correctly.



### **Verify and Complete the Installation from Your Browser**

If not able to get the ActiveX downloaded properly, user must temporarily lower the security settings to perform a one-time-only installation of the ActiveX component onto the workstation, as described below:

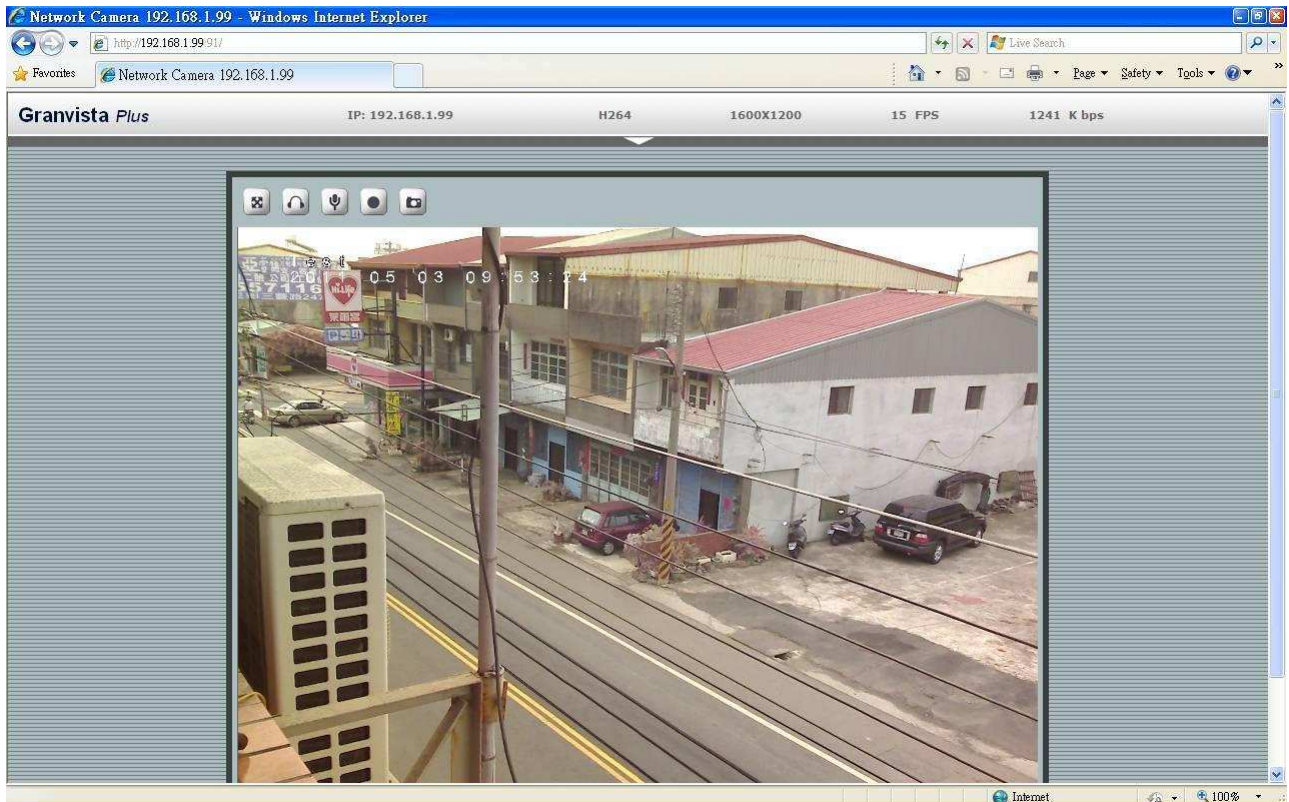
- From the Tools menu, select [Internet Options] -> [Security] -> [Custom Level]
- Set the security level to Low and click [OK].
- Depends on different versions of browser software used, the users may have to set the individual ActiveX settings from "Disable" to "Prompt" or "Enable" if necessary for completing the ActiveX program downloads.
- Restore the security level after the ActiveX installation.



# Using the Web UI

---

Start your Web browser and enter the URL or IP address in the Address field. The Home page of the camera is now displayed.



Note: Please do select “Run as administrator” to start the Internet Explorer browser if you are using Win-7 platform, otherwise you may not have the audio function to run properly.

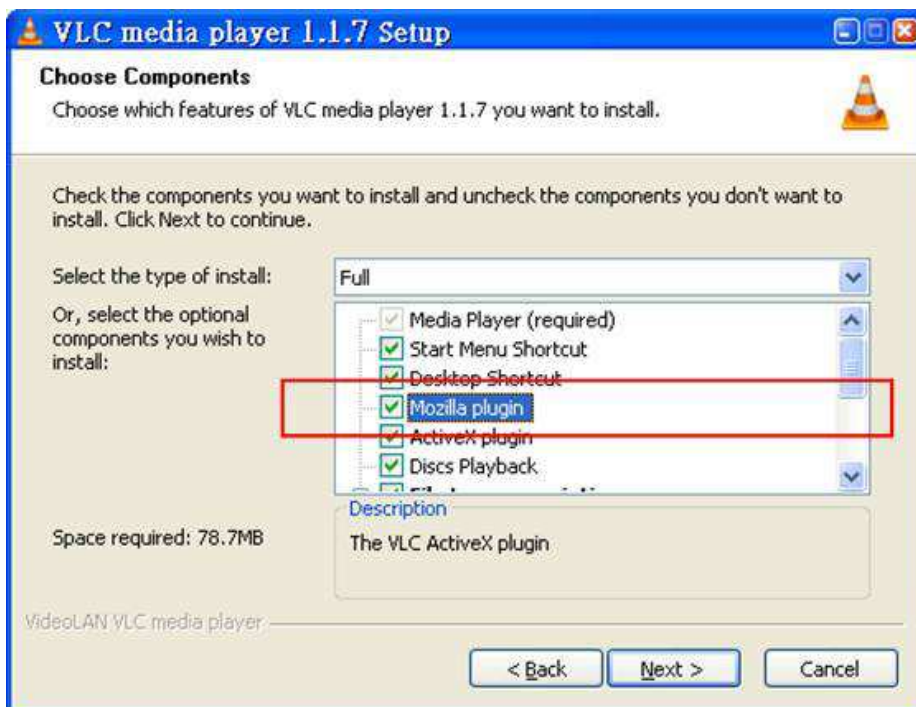
## How to make the Mozilla Firefox properly work with the cameras?

Please note that in addition to Microsoft Internet Explorer, other browsers such as Mozilla Firefox, Safari and Google Chrome are also compatible for viewing the screens from Granvista Plus network cameras. However, you may not be able to get full two-way audio supports from Firefox, Safari and Google Chrome due to the WWW browser software's existing support status on the needed plug-ins. If you want to have camera's audio feature with Firefox browser, you would have to install the needed plug-in from VLC.

Similar to Internet Explorer which needs to download the needed ActiveX programs, the Firefox browser will guide the users to download and install the VLC program for the needed plug-in the first time when it connects to the network cameras, so that it can work properly.

In the process of installing the VLC program, please be sure to check the "Mozilla plugin" option, so that Firefox may work properly with the network cameras.

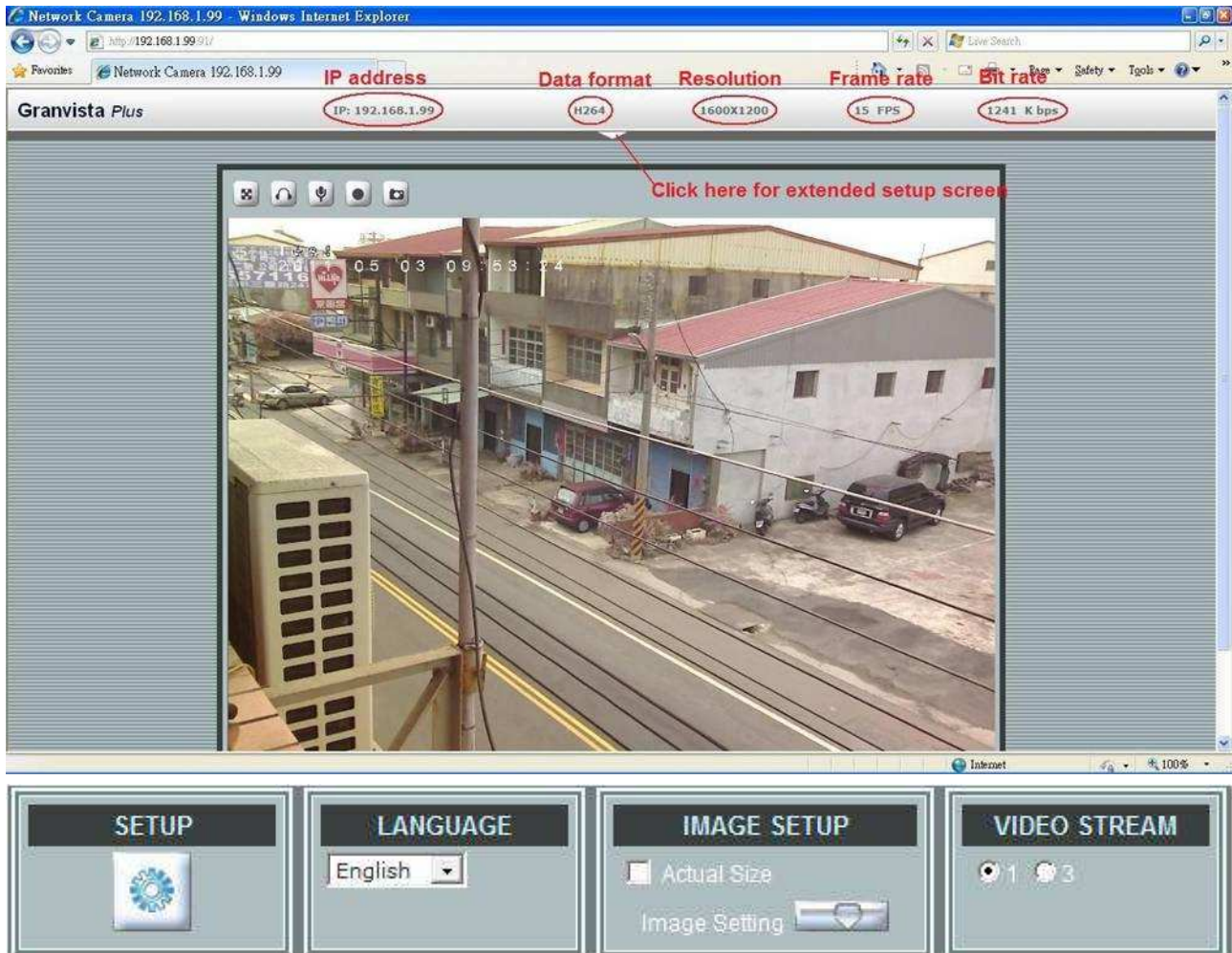
The VLC program is a very handy shareware that the users will find it helpful when they want to replay the ".mp4" video clips recorded by the cameras. Actually the users may use its streaming function for viewing the camera's rea-ltime screen directly too. Please refer to the "Video/Advanced" introduction for more details.


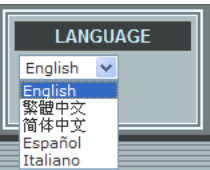

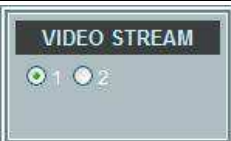


Please note that the example here does not necessarily reflect to the latest version of VLC program.








## 1. Live View



Button	Description
	Click for more general/advanced camera settings
	Select languages among English, traditional Chinese, simplified Chinese and Spanish. If you like to add customized interfaces with other languages, please refer to the "How to add a new language into the user interface V.1.0.ppt" file in the CD for more details.
	Check actual size to view the actual size (resolution) of the image Image Setting: To adjust the brightness, hue and saturation
	Choose among different streams for viewing. Due to bandwidth constraints the users may want to choose its 2nd video stream which is of 640x480 or 320x240. This 2nd stream supports digital PTZ function which users should find it helpful. There is a 3 <sup>rd</sup> stream of fixed 640x480 resolution, and which is for 3G connection only @1fps.

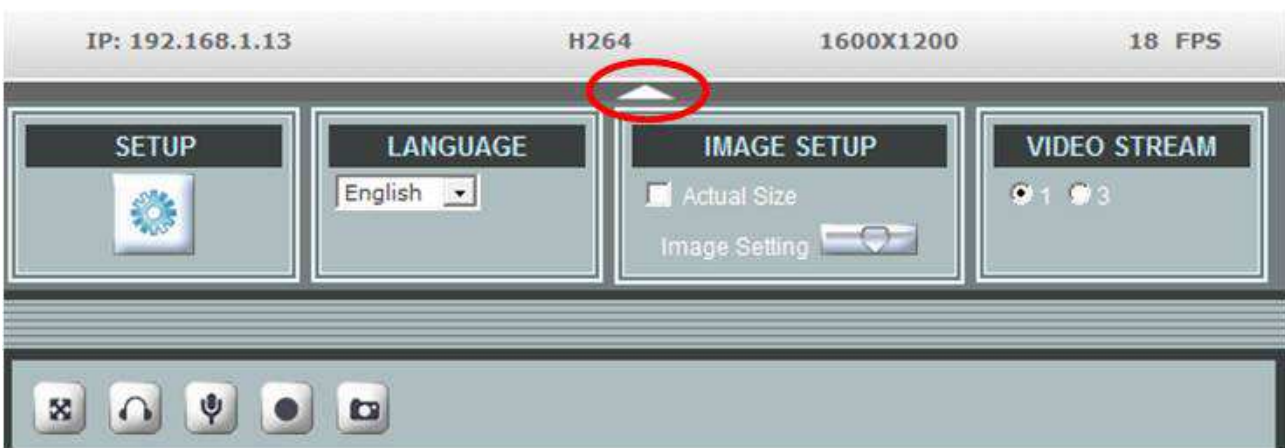


Button	Description
	Full screen
	Listen to the audio input from site. If users are using Vista / Windows 7, please right-click on the desk shortcut or the main program, select "Run as administrator" to start the WWW browser, otherwise the audio function may not work properly.
	Talk function. An external speaker need to connect to its audio jack for audio output
	Record instant live video
	Snapshot the image

Further configurations and options; a prominent button in between is used to expand the further operations.



Click on the indicated prominent, and more operational options shows up.



## 2. Video

### General

The screenshot shows the 'Video' configuration page. The 'General' tab is active, displaying 'Video General Setting' and 'OSD Setting' sections. In 'Video General Setting', 'Enable Stream 1' and 'Enable Stream 2' are checked, while 'Enabled Digital PTZ' is unchecked. In 'OSD Setting', 'Enable', 'Camera Name:' (with 'CH1' in the input field), and 'Date/Time' are all checked. A 'Save' button is at the bottom.

**Video General Setting:** Check each box to enable needed streams (max 3, including the 3<sup>rd</sup> one for 3G mobile phone) for live viewing

Note: Digital PTZ is only available with stream 2. Please select the required video streams only, so that the system can be running at best performance. Stream #3 is not shown, because it is for G3 mobile phone connection only. Stream #3 is not shown, because it is for 3G mobile phone connection only. It is transmitting at 1 frame per second / 640x480.

**OSD Setting:** Enable OSD (Over-Screen-Display) to display camera name or date/time on the image, the camera name must be a continual string, for instance "LivingRoom". This OSD setting may be set from the NVR too if any Granvista Plus series NVR has linked to this network camera.

Advanced

Live ViewVideoCameraEventScheduleNetworkSystemCustomize

GeneralAdvanced

Video General Setting

☒ Enable Stream 1

☒ Enable Stream 2

☐ Enabled Digital PTZ

OSD Setting

☒ Enable

☒ Camera Name:CH1(20 character max)

☒ Date/Time

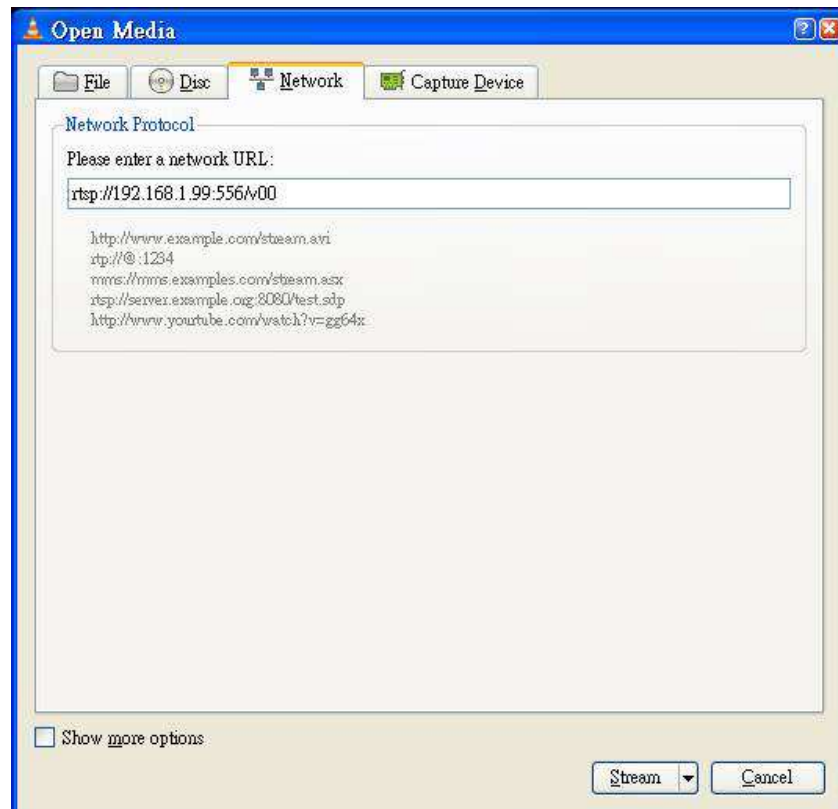
Save



## RTSP Path -

The RTSP (Real Time Streaming Protocol) Path is the stream ID used for RTSP client's streaming connection, such as VLC player or Blue Iris program. The default values are **v00** and **v01** for the two streams respectively. The string can be any combination of number or capital/small letters. It can not be empty however. By way of defining the RTSP path names, the system administrator may control whoever may connect to whichever cameras inside the network.

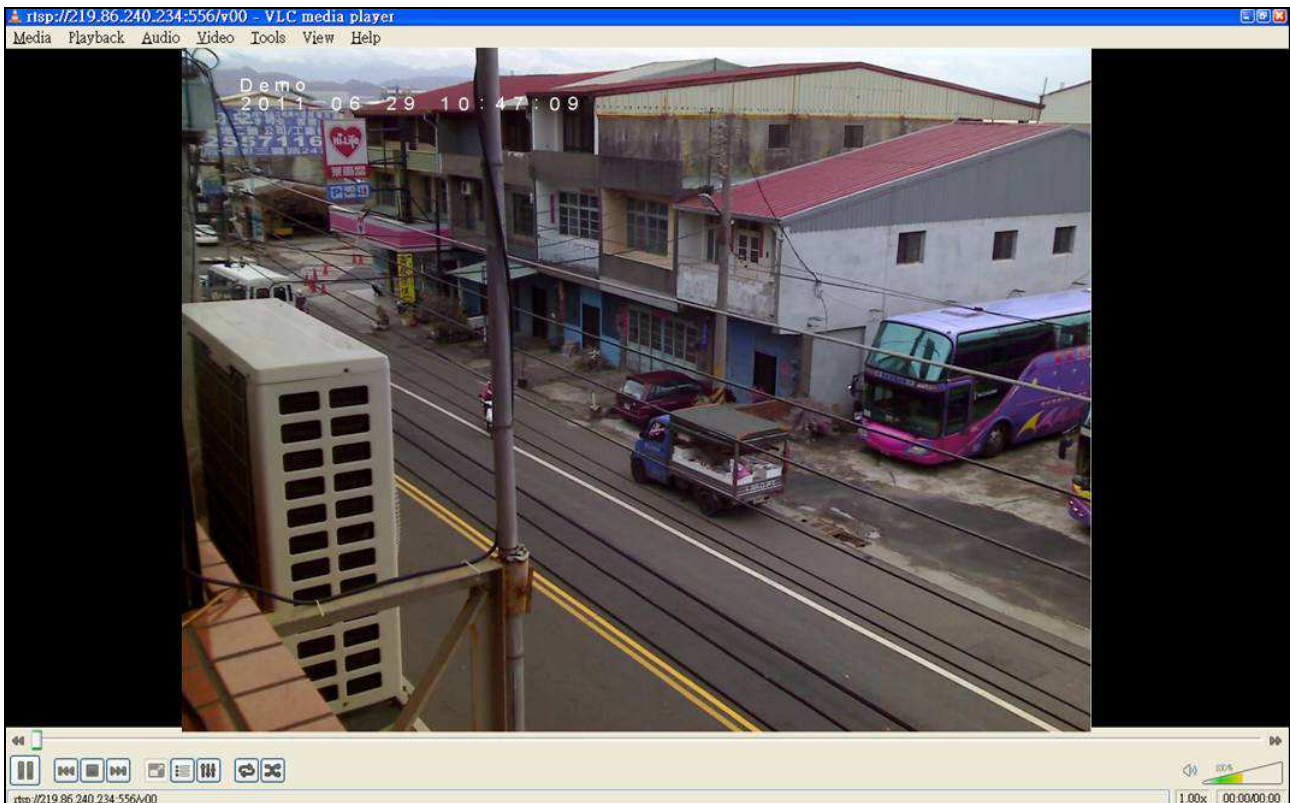
Following is a setting example of RTSP steaming by using VLC program. (The users may access this setup screen from VLC program's Media/Streaming.../Network).



Note: the "port number" of 556 in the example is its RTSP port number which the user has defined for this camera (default value is 554). This port number must be routed in the network router properly if the user likes to receive the video streaming from the web. In other words, if the user likes to use the external web address of <rtsp://219.86.240.234:556/v00> in stead of the LAN address of <rtsp://192.168.1.99:556/v00>.

Virtual Server						
Setting up Virtual Servers allows remote users to access services such as Web or FTP on the LAN via public IP Addresses.						
No.	Private IP	Private Port	Type	Public Port	Comment	Enabled
1.	192.168.1.99	91	Both	91	GVP-201	<input checked="" type="checkbox"/>
2.	192.168.1.99	556	Both	556	GVP-201	<input checked="" type="checkbox"/>

The above is a setup screen example of an Internet broadband router. In this example the port 91 is for WWW, and the port 556 is for RTSP. These two port numbers must be same as what configured in the camera's Network/Advanced settings.



Note: the users may right-click and choose VLC program's "Full Screen" mode too.

### Resolution -

The resolution here describes an image size counted by width and height, e.g. 640x480, referring to **pixel resolution**. The 1<sup>st</sup> stream can be set from more options of resolution; 1600x1200 (2 megapixels), 1280x720(HD), 800x600(SVGA), 640x480(VGA), 320x240(QVGA). While Stream2 has the options of VGA and QVGA, stream3 is in a fixed resolution, the VGA. The users need to decide which resolution and frame rate options to be selected according to the requirements and practical constraints from the bandwidth and storage available.

### Video Mode -

This option allows the selection of two bit-rate modes, the Constant Bit Rate (CBR) or Variable Bit Rate (VBR). CBR refers to the setting of a fixed **Target Bit Rate** (configuration in the range of 64Kbps to 6Mbps) that would apply in the case of limited bandwidth or/and storage requirement. While CBR concerns a fixed data rate transmitting, the video quality setting is of high priority for VBR mode selected. VBR therefore is configured with the **Quality Level** (Standard, Good, Best). In general, CBR predicts the provided condition; if image activity requires higher bit rates than configured, the frame rate and quality would be affected as not likely to increase bandwidth (bit rate). In spite of the required recording storage estimation, VBR is by way of compensation that adjustable bit rate fits the actual image activity.

### Image Format -

H.264 and MJPEG are available for image format selection. The term, "image format", is referring to compression / encoding technique. The selection of image format decides the performance of bandwidth and

storage requirement. In the request of same video quality, H.264 contributes to less bandwidth and storage requirement, which is much more efficient than MJPEG. Therefore it is usually a better selection to select H.264 format if there is no particular reason for MJPEG.

### **GOP -**

In MJPEG/H.264 video coding, GOP (group of pictures) describes how the different types of frames are arranged. The frame types implemented here are **I-frame** (full image information) and **P-frame** (motion-compensated difference information). This setting configures the **GOP length** which is the number of frames before next I-frame appears. Having more I-frames usually increases the stream size, and therefore more bandwidth and storage are required.

### **Frame Rates -**

The Frame Rates defines the number of frames that will be displayed per second. The frame rate setting can affect the target bit rate (bandwidth requirement) and storage requirement.

The pre-configured frame rates can usually be fulfilled inside the local areas networks. However, it may not be able to be fulfilled for remote access, or if the network traffic is heavily loaded. For instance, if the camera has been configured to be 15 fps, the user most probably may see full 15 fps speed inside the LAN; however, the user might only be able to see 1-2 fps of video stream if he/she wants to connect from Internet remotely. The codes of the camera have been programmed this way that the camera will have to drop the P-frames inside its buffer on every connection session in case these queued P-frames still can not be sent out to the clients-side timely due to network traffic condition, in case the data buffer is close to be over-flown, so that the user can still see a lower-frame-rate, but still smooth enough video stream when network bandwidth is not sufficient.

### **Note:**


While multiple streaming is possible, each stream has its limitation and dependency to other stream. See **“Video Stream Specification”**.

### 3. Camera

#### General

Live ViewVideoCameraEventScheduleNetworkSystemCustomize

GeneralAdvanced



Camera General Setting

Brightness:9

Hue:0

Saturation:100

Contrast:8

Sharpness:4

☐ Rotation 180

☐ Image Mirror Horizontal

Audio Setting

☒ Audio Enable

Encoder:

AAC

Bitrate:40000

Web Record Setting

Save Path:

D:\temp\

File Name:

video

Browse

Web Snapshot Image Setting

Save Path:

D:\temp\

File Name:

snap

Browse

DefaultSave

### **Camera General Setting:**

Brightness: the luminance of image view

Hue: refer to pure a pure color, or described by its name, such as red, green or blue.

Saturation: intensity of a specific color

The 3 correlates are referring image appearance in terms of color/vision. These are adjustable from this page.

Rotation 180 degree: rotate the image, so it looks up-side down. This can be applied when camera unit must be mounted up-side down.

Image Mirror Horizontal: to select for horizontally flipped image if necessary.

### **Audio Setting:**

Enable this option, so the video stream will be transferring together with the audio data. There are two types of formats of AAC and G711. AAC takes less bandwidth, while its quality is fairly good already, but the users may still want to choose G711 if they want even better audio quality, and if there is no bandwidth and storage size concern.

AAC format must be selected if the users want audio to be recorded together with the video in Schedule or snapped web recording.

In case there is a Granvista Plus series NVR (network video recorder) available in the network for recording, the NVR will set G711 as its audio default.

### **Web Record/Snapshot Setting:**

Web Record / Snapshot: define the locations where snapshot images and video clips will be stored. The file name is referring to the prefix of the file name of each snapshot image or video clip generated. These two settings' are saved in the Web Browser such as Internet Explorer, thus the settings will be reset if you reset the Web Browser software. Users may find it an easy cure to set it up in Windows's Safe Mode when they encounter problem with Vista platform which is stricter and more complicated in security settings than other platforms.

As to the "Web Recording Setting", if you have chosen D:\TEMP as the path and "video" as the file name prefix then the generated files will be saved into the D:\TEMP directory, and their file names will be in the format of "video" plus time tags, such as "video\_20110102\_121313\_770". The "Web Snapshot Image Setting" is configured in the same way.

**If users are using Vista / Windows 7, please right-click on the desk shortcut or the main program, select "Run as administrator" to start the WWW browser, otherwise Windows may not allow you to configure properly.**

### **Default:**

Set **[camera general setting]** and **[audio setting]** back to default

Note: As mentioned above, this Default command will not change the configuration of **[Web Record Setting]** and **[web Snapshot Image Setting]**

### **Save:**

Save the changes which have been made

## Advanced

**Camera Advanced Setting:**

White balance: Auto

Exposure: Flicker-free 50 Hz

Max Exposure Time: 1/30 s

Max Gain Control: 31 dB

Illuminator LEDs: Auto

Status LED: On

Light Sensor Day / Night Threshold: 20

Back Light Compensation: On

Save

**White balance:** Adjustment to compensate for different environments in terms of light source.

**Exposure:** Anti-flicker setting for image sensor to fit the frequency of light (power) source. For instance, the power frequency is 50Hz for most European countries, while 60Hz is typically for US. This setting is therefore regionally different. **Note: Default setting is 50Hz**

**Max Exposure Time:** Referring to the shutter speed. To set to slower shutter speed such as 1/15 second is one alternative to improve image in case of dark environment with IR illumination.

**Max Gain Control:** The maximum amplification factor for the incoming light. Similar to the photographic theories, in case of environment of dim light, increase it for optimal result if necessary. On the contrary, turn it down for environments of stronger light if necessary. Usually the users may leave it at max setting without the need to change for best results.

**Illuminator LEDs:** The default is automatically switched according to site illumination. LED will turn on when there is light deficiency.

**Status LED:** Turn on/off the camera status LED. You may want to purposely turn it off if you do not want people to tell whether it is operational or not.

**Light Sensor Day / Night Threshold:** Adjustment for fine-tuning how dark to turn on the IR LEDs. The lower the setting, the darker it has to be to turn on the LEDs.

**Back Light Compensation:** Option for automatically making compensation for back light.

## 4. Event

Event handling describes the configurations of events and the corresponding actions. To have an insight into this function, a common example can be storing the captured images or video clips to Micro SD card (up to 32GB in storage size) , a remote disk in LAN (SAMBA), FTP server or Email account (images only), when there is an Event (motion or periodic triggering).

The screenshot displays a web-based configuration interface for an event handling system. At the top, there is a horizontal menu with tabs: Live View, Video, Camera, Event (highlighted with a red underline), Schedule, Network, System, and Customize. Below this, a sub-menu is visible with three tabs: Event Server (highlighted with a blue underline), Motion Detection, and Event Configuration. The main content area is titled 'Event Server List' and contains a table with the following data:

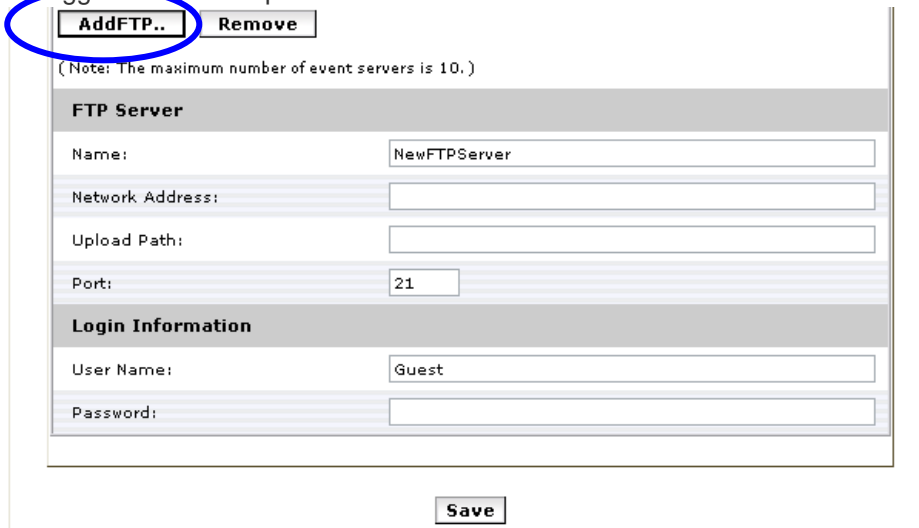
Name	Protocol	Network Address	Upload Path	User Name
FTPServer	FTP	192.168.1.10		ipcam

Below the table, there are two buttons: 'AddFTP..' and 'Remove'. At the bottom of the list area, a note states: '( Note: The maximum number of event servers is 10. )'



## Event Server

The “Event Server List” lists the configured server(s) that will act as a remote storage or a destination for handling the triggered events. Up to 10 FTP servers can be added in the list.



(Note: The maximum number of event servers is 10.)

**FTP Server**

Name:

Network Address:

Upload Path:

Port:

**Login Information**

User Name:

Password:

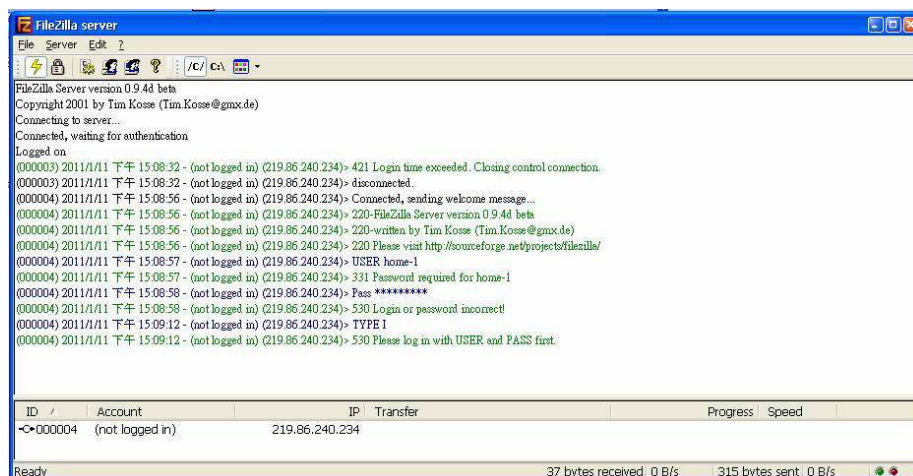
**Save**

Click on the **[Add FTP]** to expand FTP server setting

### FTP Server:

- Name: Give a name for the FTP server.
- Network Address: Input the network address of the FTP server, which can be located in LAN or external web, for instance “192.168.1.100” or “219.86.240.234” respectively. Please note that such WEB IP such as “219.86.240.234” can be applicable only when the network is connected to Internet, and it is properly configured in the broadband router.
- Upload Path: Choose the desired upload path for events. If not specifically defined, it will be the default folder configured in the FTP system.
- Port: Input the port number of the FTP server, typically 21.

Remarks: FTP is quite a convenient web application, and it is quite easy to use. Attached below is an example of FTP screen indicates that a Network Camera keeps on talking to the FTP server. In this example the FTP server address can be set as either 192.168.1.3 (LAN) or 219.86.240.234 (WEB) from near end.





### Login Information:

- Username / Password: Input the username and password of the FTP

Live View Video Camera **Event** Schedule Network System Customize

Event Server Motion Detection Event Configuration

**Event Server List**

Name	Protocol	Network Address	Upload Path	User Name
FTPServer	FTP	192.168.1.10		ipcam

( Note: The maximum number of event servers is 10. )

**FTP Server**

Name:

Network Address:

Upload Path:

Port:

**Login Information**

User Name:

Password:

Click [**Remove**] to delete selected event servers

Please refer to Appendix-I for more information on FPT applications.

## Motion Detection

A snapshot image shows the whole view of the camera covered. To select a motion detection area, click directly on the image, and then change the size and position by dragging and drawing. Up to 10 motion areas (configurations) can be added in the list. Each detection area can be set with its own sensitivity value.

Live ViewVideoCameraEventScheduleNetworkSystemCustomize

Event ServerMotion DetectionEvent Configuration



Refresh

Motion Detection List

Windows Area Name

seat  
door  
coming in

AddDel

Motion Detection Setup

Windows Area Name:Seats

Trigger Level :19

Sensitivity :60

( Sensitivity value:0~100[low~High] )

Color:FF0000

☒ View All Windows

☐ View Selected Window

Save

## Event Configuration

The Event Configuration is to assign the actions responding to the specified events (Trigger Conditions).

The table lists the configured events. Click on “**Add...**” or choose an event from the list to extend the panel for detail configurations. “**Remove**” is to delete a selected event.

A total of up to 10 event settings with different combinations of motion detections, or automatic triggering based on every period of time can be configured into the system.

Note: Please refer to the following setup screen to make sure the Micro SD card is available before you are able to record the Event data into the Micro SD card.

Live View Video Camera **Event** Schedule Network System Customize

Event Server Motion Detection **Event Configuration**

**Event Record File**

File Format: ☒ JPEG ☐ H264

**Event Type List**

Name	Status	Enable	Trigger	Actions
image	Active	Yes	Motion Det.	Du
H264	Active	Yes	Motion Det.	Du

**Add...** **Remove**

( Note: The maximum number of events is 10.  
Fu=FTP Upload, Eu=Email Upload, Du=Disk Upload, O=Output Port, En=Email Notification,  
Tn=TCP Notification. )

**Event Type Setup**

Name:

Set min time between triggers:  (max 23:59:59)

Respond to Trigger

☒ Always ☐ Never

Trigger by

**When Triggered**

☐ Upload Images

☐ Send Email Notification

**Save**

Select JPEG for photo images, and H264 for video clips

Click Add for new event setting

Minimum time allowed for next triggering

Enable/Disable

The events can be configured to be triggered by motion detection, or automatic triggering based on every period of time.

#### Trigger types (conditions)

**Motion Detection:** The configured detection area(s) for motion events.



**Event Type Setup**

Name:

Set min time between triggers:  (max 23:59:59)

Respond to Trigger

☒ Always

☐ Never

Trigger by:

In Window:

**When Triggered...**

☒ Upload Images

Select Upload type:

☐ Send Email Notification

**Save**

**Name of motion trigger**

**The time lapse of periodic triggering can be one minute up to 23:59:59.**

**Storage medias can flexibly be FTP, Email or Disk**

**An email notification can be set out simultaneously.**

When triggering action activated

Store image to FTP (Remote), Email or SD card (Local)

#### Time Lapse of Events

Events may come frequently, for instance, a moving object may keep triggering in a detection area, and false alarms may therefore occur. The **"minimum time between triggers"** setting is then for this case. System waits for the given time before the next trigger taken.

**Period:** To be triggered every preset period of time. The time lapse of periodic triggering can be one minute up to 23:59:59.

**Event Type Setup**

Name:

Respond to Trigger

☒ Always

☐ Never

Trigger by:

Time Lapse:  (00:01:00 ~ 23:59:59)

**When Triggered...**

☒ Upload Images

Select Upload type:

☐ Send Email Notification

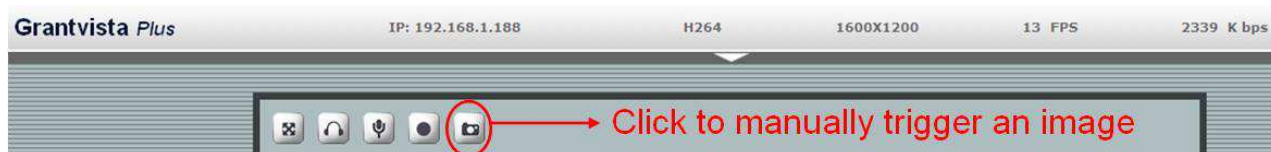
**Save**

**The time lapse of periodic triggering can be one minute up to 23:59:59.**

**Storage medias can flexibly be FTP, Email or Disk**

**An email notification can be set out simultaneously.**

Note: there is another manual trigger functionality available from clicking trigger button embedded on the web main page.



### H.264 mode triggered recording:

Not only for triggering images of jpg format, the camera allows users to trigger video clips of H.264 format with pre-defined time lengths of 15, 30 45 or 60 seconds.

This H264 video clip triggering function provides another option in addition to Schedule recording function at pre-defined data size.

Please note that the video clips generated may be flexibly sent to SD card, FTP or Email, but due to actual constraints from the availability of the needed network resources and its bandwidth, the FTP and Email options may not work as well as expected. The users have to make the best judgment not to impose unnecessary loading to its CPU and the network loading for optimal performance.

The image shows two screenshots of the web interface. The top screenshot is the 'Event Configuration' page, and the bottom screenshot is the 'Event Type Setup' page.

**Event Configuration Screenshot:**

- Tabs: Live View, Video, Camera, **Event**, Schedule, Network, System, Customize.
- Sub-tabs: Event Server, Motion Detection, **Event Configuration**.
- Event Record File:** File Format: ☐ JPEG ☒ H264.
- Event Type List:**

Name	Status	Enable	Trigger	Actions
triggered-r...	Inactive	Yes	Motion Det.	Du
- Buttons: Add..., Remove.
- Note: ( Note: The maximum number of events is 10. Fu=FTP Upload, Eu=Email Upload, Du=Disk Upload, O=Output Port, En=Email Notification, Tn=TCP Notification. )

**Event Type Setup Screenshot:**

- Name:** triggered-recording
- Set min time between triggers:** 00:00:05 (max 23:59:59)
- Respond to Trigger:** ☒ Always ☐ Never
- Trigger by:** Motion Detection
- In Window:** motiondetection
- When Triggered...**
  - ☒ Upload Images
    - Select Upload type: Disk
    - Base File Name: image
    - Recording Length: 15 second(s) (dropdown menu with options: 15, 30, 45, 60)
  - ☐ Send Email Notification
- Button: Save

## 5. Schedule

GVP-201/GVP-201W series models are equipped with a card slot for Micro-SD/SDHC storage. This storage is applied for local video and image recording. The recording function can be launched according to scheduled time frames. The SD card also records the JPEG images responding to an event.

The size of Micro SD card can be up to **32GB**, preferably be at least **Class-4 or even faster grades**.

### General

Define the day (specified by days of a week) and time (specified by each single hour) for that the video, or even the audio, will be recorded during the scheduled period. User can select which video stream should be recorded, and the size of each sliced file. When the check box is ticked, recording process starts at the scheduled hours (red blocks). The user may select on “ALL”, or the raw and column notations for a quicker selection.

Live View Video Camera Event **Schedule** Network System Customize

**General** Storage

☒ Enabled

Stream: ☒ 1 ☐ 2

Slice File Size: 50 (MB)

Save Device Type: Local Disk

All	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mon.																								
Tue.																								
Wed.																								
Thu.																								
Fri.																								
Sat.																								
Sun.																								

☒ Scheduled

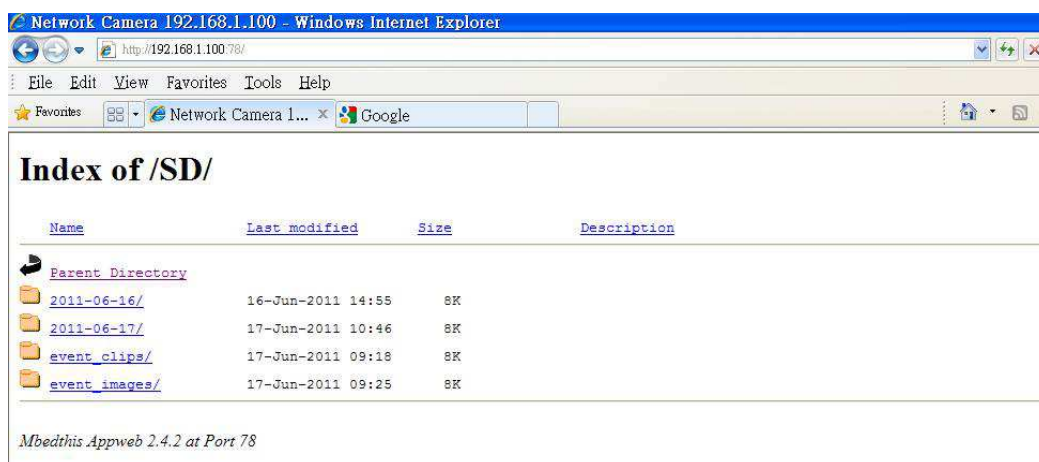
Save

### Storage

Display the storage information, includes disk size info, type and status. The warning message (red text) shows when recording is in process; SD card should not be removed during the recording process.



The “**Browse**” button allows viewing the list of recorded files. The web page will then be redirected to the root path of the SD storage (if one is inserted). The list includes couple of folders, the **event\_images** which contains all the still images captured by any event trigger, and **folders specified by date** where the recorded video files are located.



The recorded video files are named in date\_time format, and the extension file name is “.mp4”. The recorded files can be re-played with VLC or other application programs. Please note that AAC audio format needs to be selected if audio needs to be recorded into the files as well, and the recorded files will be in MP4 format. If the users have selected G711 as the audio format, audio won’t be recorded into the files to save the file spaces, and the recorded files will have the extension file name of H264. The Granvista Plus series NVRs all have much storage spaces which are able to record superior audio into the files thus the NVR will set G711 audio format as default.

The files generated from the recording process are handled on “first-in-first-out” basis. In other words, the oldest folders/files will be deleted when there is not enough space for the new data.



The recorded files may also be recorded into the remote-disk in LAN (Samba) instead of SD card. Please refer to following setup screens with setup tips for more details.

Live View Video Camera Event **Schedule** Network System Customize

General Storage

Local Disk Setting Remote Disk Setting

**Click for remote disk setting**

**Disk Status**

Total Size:	15431376 KB
Used Size:	15280664 KB
Free Size:	150712 KB
Disk Type:	SD
Disk Status:	normal

Refresh Browse Remove Event Images

**Local Disk Setting**

☒ Mount Save

Type: FAT32 Format

Live View Video Camera Event **Schedule** Network System Customize

General Storage

Local Disk Setting Remote Disk Setting

**Disk Status**

Total Size:	0 KB
Used Size:	0 KB
Free Size:	0 KB
Disk Type:	SMBFS
Disk Status:	normal

Refresh

**Remote Disk Setting**

☒ Enabled

Action: Mount

Type: SMBFS

Remote Disk Path: 192.168.1.3/temp

User Name: battleship

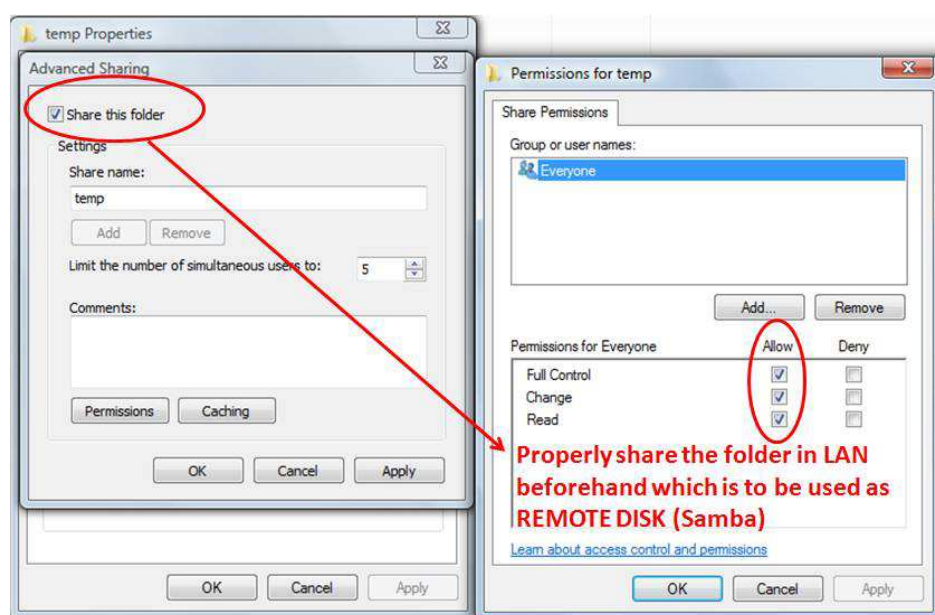
Password: .....

**SMBFS: for Windows  
NFS: for Linux**

**User ID and password of  
this PC of IP address  
"192.168.1.3"**

Save

Please note that the remote disk to be utilized in the LAN PC needs to be shared properly beforehand.



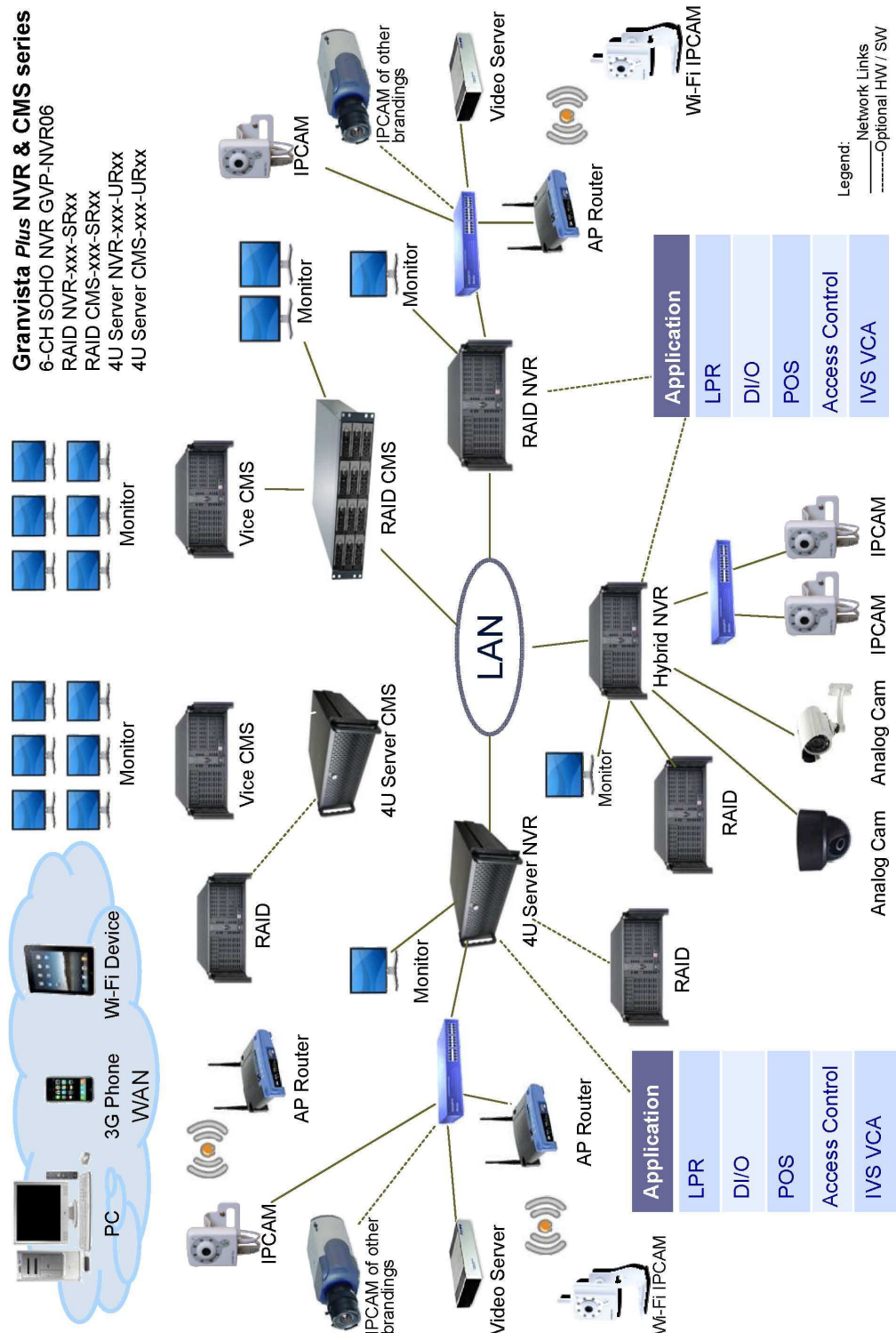
Depends on different resolutions, frame rate, data formats and time frames are configured, a Micro SD of 32GB is able to handle several days of data storage already, and the storage space from Remote-Disk has provided another alternative too. Apparently the camera's recording functionality with Micro SD card or Remote-Disk is able to satisfy users' basic data storage requirements already.

Besides, the free-bundled GVD software is also a good option to use for video recording purpose under minimized budget, if the users happen to have spare PCs with relevant hardware compatibility (the PC's screen resolution and CPU performance must be above a decent level to make this NVR software running at optimal performance).

In addition, the users may also take advantages of our Linux-based Granvista Plus NVR for even more advanced and professional applications. Up to 64 connections, or even more, are able to be built into the Granvista Plus series NVRs. Please refer to our web site, or contact us for more details. Attached below is a sample of our SOHO model NVR which may support up to 6 connections.



# Granvista Plus NVR / CMS Network Diagram – for users' advanced requirements



## 6. Network

Network Camera acts as one of the network devices. It therefore allows its “IP” to be assigned, so certain network functionalities can be implementable within this device. This section describes these configurations. Fundamentally, for instance, the IP assignment of the device can be done via **DHCP server**, **manually fixed IP option** or **PPPoE** to obtain IP from service provider.

### General

Device IP configuration, includes DHCP, Static IP setting and PPPoE. “Enable ARP/Ping” enable device to accept ARP or ping packets from the network. Disable this option may provide extra security from intentional ping.

The screenshot shows a web interface for network configuration. At the top, there are tabs: Live View, Video, Camera, Event, Schedule, Network (selected), System, and Customize. Below these, there are sub-tabs: General (selected), Advanced, SMTP(E-Mail), DDNS, and Wireless. The General tab contains the following settings:

- ☐ DHCP Service
- ☒ Static IP Address:
  - IP Address: 192.168.1.188
  - Netmask: 255.255.255.0
  - Gateway: 192.168.1.1
  - DNS 1: 168.95.1.1
  - DNS 2: 61.31.1.1
- ☐ PPPoE:
  - User Name: username
  - Password: \*\*\*\*\*
- (Note : Please make sure 'Email Setting' has been set!)
- ☒ Enable ARP/Ping

At the bottom right of the form is a **Save** button.

## Advanced

Enable or configure other network functions.

Live View Video Camera Event Schedule **Network** System Customize

General **Advanced** SMTP(E-Mail) DDNS Wireless

**NTP Configuration**

☐ Obtain NTP server address via DHCP

☒ Use the following NTP server address:

Network address:

(host name or IP address)

**HTTP Setting**

HTTP Port:  ( 0 ~ 65535, Default : 80 )

**RTSP Setting**

RTSP Port:  ( 0 ~ 65535, Default : 554 )

**Bonjour Setting**

☒ Enable Bonjour

**UPnP Notification**

☒ Enable UPnP

**NAT Traversal Setting**

☐ Enable NAT Traversal

**Save**

**NTP:** Configure a NTP (Network Time Protocol) server, so that the device system date and time can be synchronized with a specified Time Server. This configuration is provided for one of the potions of system date/time adjustment. If the camera is located in an isolated LAN, in other words it does not have access to web, the user may set the IP of the PC in LAN as its NTP setting, so that the camera's time will be synchronized with the PC.

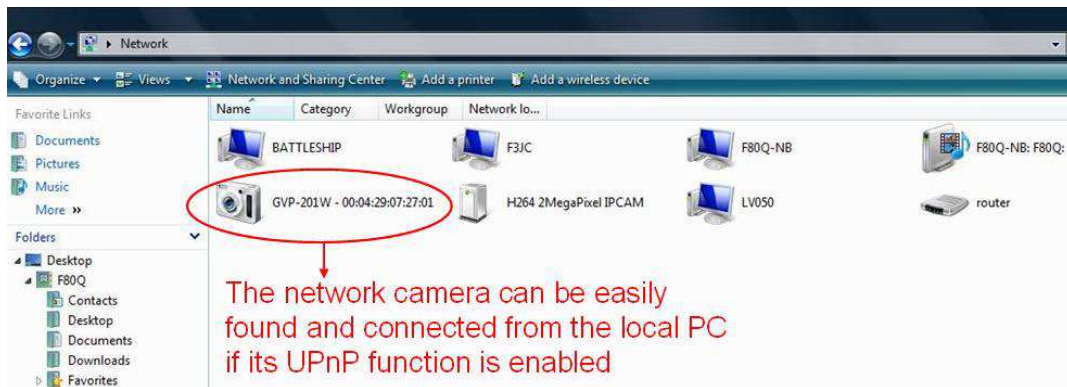
**HTTP:** set the HTTP port that will be applied for Web UI access. The default port number of HTTP is "80", but it can be of other figures.

**RTSP:** set the RTSP (Video) port for video data transmission. The default port number of RTSP is "554", but it can be of other figures.



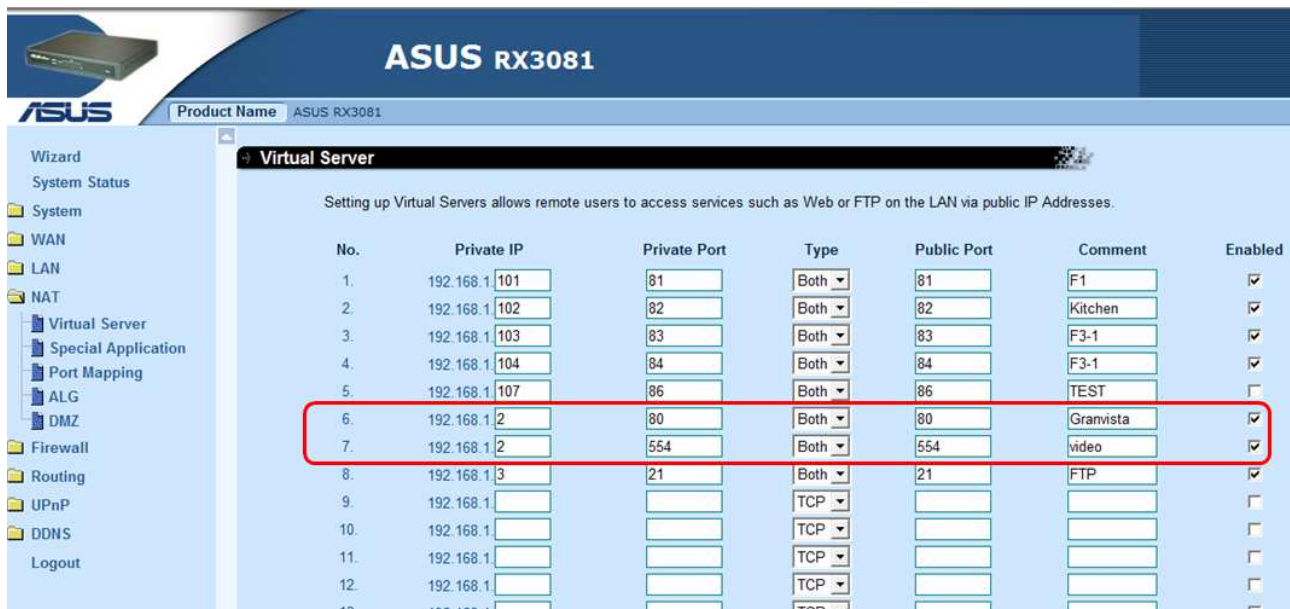
**Bonjour:** Enable Bonjour service, so that the device can be discovered with “Bonjour” service applied.

**UPnP:** Enable UPnP, so that the device can be discovered in an UPnP Compliant Network.



**NAT Traversal:** Enable NAT traversal, so that client from Internet can have access to the devices behind the Router. If user would like to access the Network Camera from Web externally, be sure to also include the RTSP port by duplicating the same IP.

In the following example this Network Camera's LAN IP is of 192.168.1.2., thus the user should type in the full address of <http://192.168.1.2:80> (as port 80 is WWW's default port number thus “:80” can be omitted) in the address field of Internet Explorer to access this network camera. If the user wants to access it from web externally, he would have to properly setup its HTTP port (in this case “80”, or other port number), and the RTSP port (in this case “554”, or other port number)) in the NAT setting of the router beforehand, and then he may access it with the web address (in this example it is <http://219.86.240.234:80> to access it from anywhere of the world via Internet) if the router has connected to Internet.



**Note:** with UPnP enabled, the IP Sharing device (Router) capable of UPnP function will automatically be noticed with the device's NAT port.

## SMTP (E-Mail)

Configure an email host in the device that will send email on behalf of the configured email account in a circumstance like sending an email notice to a specified mail address (Event Configuration), or to send the triggered image. The email settings will be basically same as what used in your email software.

**Mail server:** The SMTP server (for out-going emails). Please refer to your ISP to get the right Mail server and port number information.

**User Name and Password:** Complete the Mail Server, Server Port, Authentication information (if required) and the sender's email address.

**From (Email Address):** What to be shown as the sender when the email is received. **It does not necessarily need to be a real email account.** In this example the [test@longvast.com](mailto:test@longvast.com) actually does not exist. For instance, the user may define [cam1@longvast.com](mailto:cam1@longvast.com), [cam2@longvast.com](mailto:cam2@longvast.com), or [cam3@longvast.com](mailto:cam3@longvast.com), etc, which do not exist to help identifying email messages from different cameras by the name of [ipcam2@longvast.com](mailto:ipcam2@longvast.com).

**Send email to:** The recipient email address

Following screen shows an example of setting an email account. The users may need to refer to the ISP for more details on the email configuration. In this example the [ipcam2@longvast.com](mailto:ipcam2@longvast.com) Email account will be used to send triggered images or notifications to the [info@longvast.com](mailto:info@longvast.com) account.

The screenshot shows the 'SMTP(E-Mail)' configuration tab in a web interface. The 'General' sub-tab is active. The form contains the following fields and annotations:

- Mail Server:** [mail.longvast.com](mailto:mail.longvast.com) (Annotated: "The SMTP server of the mail service")
- Server Port:** 25 (Annotated: "Port number of the mail server, must be set correctly")
- Authentication:** ☒ (Annotated: "Email and password of this email account to be used")
- User Name:** [ipcam2@longvast.com](mailto:ipcam2@longvast.com) (Annotated: "Email and password of this email account to be used")
- Password:** [Redacted]
- From ( Email Address ):** [test@longvast.com](mailto:test@longvast.com) (Annotated: "What to be shown as the sender when the email is received.")
- Send email to:** [info@longvast.com](mailto:info@longvast.com) (Annotated: "The recipient email account")

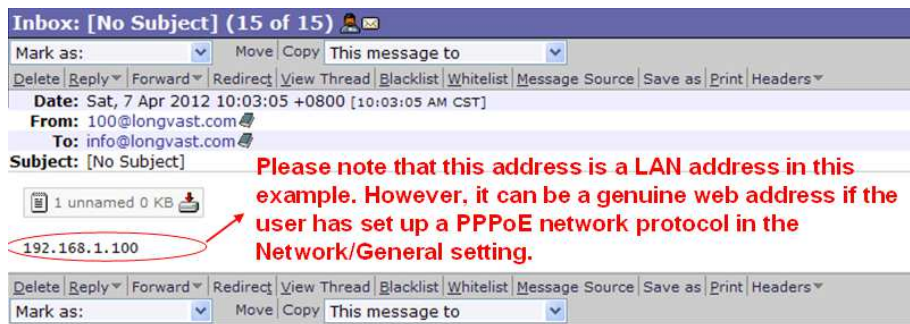
Buttons: 'Test' and 'Save'.

If the setting is successful, click on "Test" button, and then an acknowledgement email with "Email Test OK" message should be received by the recipient immediately. Following is an example of such acknowledgement email after clicking "Test" button.

The screenshot shows an email client interface with the following details:

- Current Folder:** INBOX
- Compose | Addresses | Folders | Options | Search | Help**
- Message List | Unread | Delete** (Previous | Next)
- Subject:** Email Test
- From:** [test@longvast.com](mailto:test@longvast.com)
- Date:** Mon, September 26, 2011 10:11 am
- To:** [info@longvast.com](mailto:info@longvast.com)
- Priority:** Normal
- Options:** [View Full Header](#) | [View Printable Version](#) | [Download this as a file](#)

The body of the email contains the text: "Email Test OK"



Remark:

1. Similar email of the above example can be received at the camera's starting-up or being reset, if the SMTP settings are correctly configured and the camera is connected to the Internet. It notifies the user what's the camera's current IP address. It is helpful for users to locate the IP of camera when using DHCP or PPPoE network setting.
2. Please also refer to the description of the Network/General setting paragraph inside this manual, note that in the example of the above image the "192.168.1.100" indicates to be a LAN address. However, in the case that the users are able to get real IP from Internet Service Provider, the camera may get a real Internet IP after correctly making the PPPoE setting, and in this case instead of getting a LAN IP such as "192.168.1.100", a real Internet IP such as "219.86.240.230" will be shown in the above email notification.



## DDNS

Dynamic DNS configuration; the network device can be assigned and accessed with a host name instead of IP address by registering this service (Internet access required).

**Host Name:** Assigned name that will be used for access to the device

**User Name/Password:** Account authentication for logging to this service

**Update Time:** Periodically, the device updates its access info to sever in the configured time.

**Response:** the device responds the connection info.

Following illustrative contents show the users some details about applying DynDNS service. Please note that DynDNS is not the only service available in the world market for DDNS services. Besides, DynDNS provides free services, and they also provide advanced services which are non-free.

The screenshot shows the DynDNS.com website. At the top, there's a navigation bar with links: About, Services, Account, Support, and News. Below this, a login section includes fields for Username and Password, a Log in button, and links for Lost Password? and Create Account. A central banner introduces the 'NEW DynDNS Community', highlighting features like community voting, reputation points, and a single sign-on system, with a 'Join Now' button. To the left of the banner, a section titled 'I'd like to...' lists services: Remotely access my home computer, Control my DVR from anywhere, Get a free domain name, Safeguard my email, and Protect and speed up my Internet. Below the banner, there are two main service areas: 'Free Dynamic DNS' and 'DNS Hosting & Domains'. The 'Free Dynamic DNS' section explains how to point a hostname to a dynamic or static IP address and lists benefits like hosting a website for free and connecting to workstations/DVRs/webcams. It includes a form to add a new entry (example .dyndns.biz) and a link to DDNS service details. The 'DNS Hosting & Domains' section describes registering a domain and pointing it to an IP address, listing benefits like an easy-to-use web interface and global servers. It also includes a form to add a new entry (example.com) and a link to more about Custom DNS hosting. At the bottom, there are four columns: Resources (What is DNS?, DNS Tools, Home DNS Solutions, Business DNS Solutions), Services (DNS Hosting, Free Dynamic DNS, Spring Server VPS, Domain Registration), Support (DynStatus, Knowledge Base, 24/7 Premier Support, DNS Update Clients), and Follow Us (Our News, Twitter @dyninc, LinkedIn, DNS Ninjas | Facebook).

This series network device support DynDNS ([www.dyndns.org](http://www.dyndns.org)). This section describes how to apply this service to the Network Camera.

## Create Account

**Create an account or log in to continue**

Username:


Password:

Confirm password:

Email:

Confirm email:


Subscribe to: ☒ DynDNS.com newsletter (1 or 2 per month)  
☐ Dyn Inc. press releases  
☐ Remove HTML formatting from email

Security Image:  
  
Enter the numbers from the above image:

☐ I agree with the [acceptable use policy \(AUP\)](#) and [privacy policy](#).

If you're having difficulty creating your account, for any reason, feel free to [contact us](#).


Already Registered?  
Username   
Password   
  
[Forgot your password?](#)




Input user name, password and Email that will be created as an account for logging in the service. .

The website has accepted the new account and sent email for verification.

In the received mail from DynDNS, use the link to activate. The account will then be confirmed as the web below shows.

 Username  Password    
[Lost Password?](#) [Create Account](#)


About Services Account Support News

 **Account Confirmed**


The account `pixord-dns` has been confirmed. You can now [login](#) and start using your account.

**Getting Started**

- [Surf without the sharks and browse the web faster with Internet Guide](#)
- [Create a dynamic DNS host with your own domain name](#)
- [Create a dynamic DNS host within our Free domains](#)
- [Setup email services](#)
- [Register a domain name](#)



Web filtering  
Anti-phishing  
Anti-fraud  
Anti-malware  
Faster web experience  
No network settings needed  
One-click install!

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## Login and use the service

Username  Password

[Lost Password?](#) [Create Account](#)

Home	Support	News	
------	---------	------	--

In the login filed, input username and password as the new account created.

**My Services**  
 View, modify, purchase, and delete your services.

[My Zones/Domains](#)  
[Add Zone/Domain Services](#)

[My Hosts](#)  
[Add Host Services](#)

[Dynamic DNS Pro](#)

[Internet Guide](#)

[Spring Server VPS](#)

[MailHop Outbound](#)

[Network Monitoring](#)

[SSL Certificates](#)

[Recursive DNS](#)

[Support](#)  
[Premier Support](#)  
[Contact Support](#)  
[DNS Service Level Agreement](#)

After logged in, in the **"My Services"** column, click on "Add Host Services".

Fill in a host name as it will be applied to the device. The "IP Address" field can be temporally filled with any IP as it will be updated once the device has registered to the service and reported its current IP value. Click on "Add To Cart" for next stage. The Dynamic DNS host service is free. Just click on "Next".

Checkout from the applying service and activate the added host name.

The information of activated host name will be arranged. Click on "Add New Host" if requiring more host names for other Network Cameras.

## Apply Host Name to the Camera

**Dynamic DNS Setting**

☒ DDNS Enable

Host Name:  (Link to <http://www.dyndns.org>)

User Name:

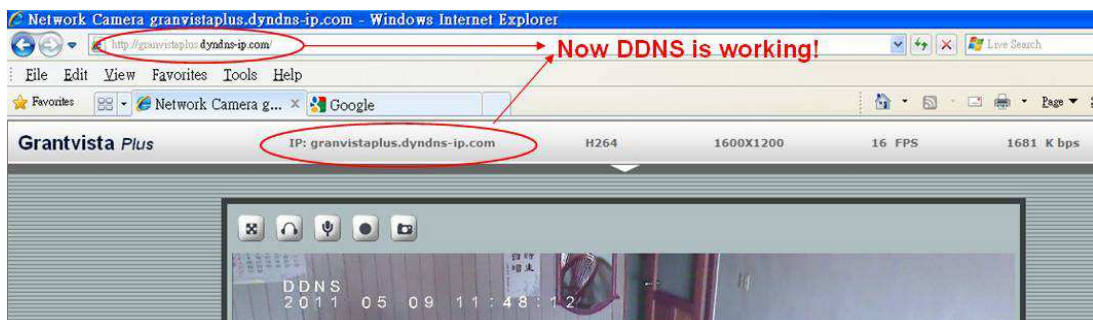
Password:

Update Time:  ( 600~86400 Seconds )

Response:

**Save**

In the device configuration page, Setup -> Network -> DDNS, fill in the applied host name from DynDNS website, the username / password that are for logging in this service. Enable DDNS, and then save the settings. The "Response" will show "yes" message when registering is successful.

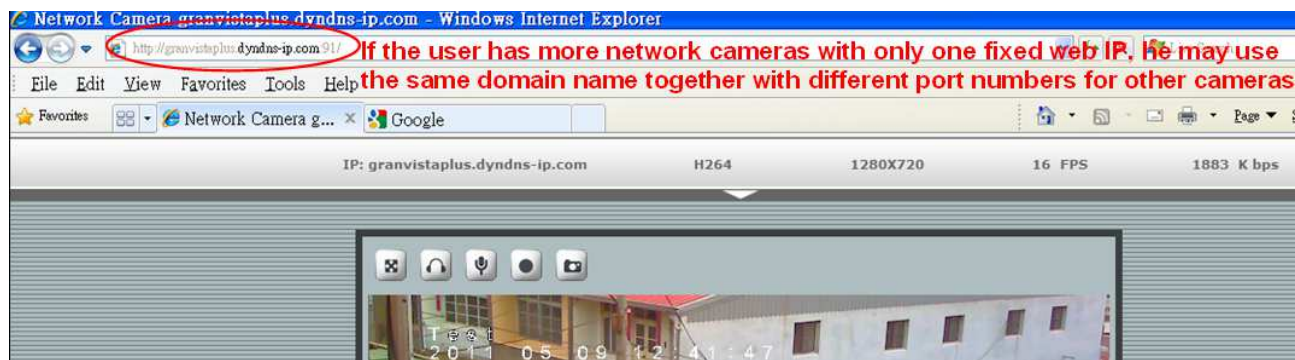


Launch IE and type <http://granvistaplus.dyndns-ip.com/> (for instance) in the URL filed. The page should be directed to the device's live view page. Please note that the address of <http://granvistaplus.dyndns-ip.com/> is equivalent to the address of <http://granvistaplus.dyndns-ip.com:80/>, because the default WWW port number is 80.

In this example the address of <http://granvistaplus.dyndns-ip.com/> is same as <http://219.86.240.234/>. Please refer to the Network setting paragraph in this manual, the user must properly setup the HTTP and RTSP ports in both camera and broadband router's NAT virtual domain settings to make sure camera can be accessed by the address of <http://219.86.240.234/> before the <http://granvistaplus.dyndns-ip.com/> address is able to work properly.

**How if the user has only one fixed web IP, for instance 219.86.240.234, while he has many network cameras to implement?**

Just like the user may setup the camera address of <http://219.86.240.234:91/>, <http://219.86.240.234:92/>, etc, the address of similar setting of <http://granvistaplus.dyndns-ip.com:91/> or <http://granvistaplus.dyndns-ip.com:92/> can be configured for other network cameras too. Following figure is an example of such DDNS application by using specific port number.



Users may find this DDNS function useful when they do not have fixed IP available. For instance, some Internet Service Providers do not provide fixed IP, and the IP available could be the ones generated randomly after completing login processes through PPPoE protocol. As under such circumstances the users do not know what IP will be generated, therefore they can just keep using the fixed domain names from the DDNS service, as long as the DDNS service has been configured properly.

For this application, following are the procedures:

1. Configure the DDNS settings properly when the IPCAM is running under DHCP or fixe-IP networking mode, make sure that a “yes” status is seen from the DDNS setup page of the IPCAM after clicking “save”.
2. Check if the domain name is valid and working by typing in the domain name in the address field of the WWW browser. For instance, type in “<http://granvistaplus.dyndns-ip.com/>” in the address field of IE browser to see if it may connect to the IPCAM properly after configuring the DDNS settings.
3. Go to Setup/Network/General setting page of the IPCAM’s user interface, and change the network protocol to PPPoE. Save the settings, and reset the IPCAM by switching the power.
4. Check to see if the IPCAM can still be located and connected by the address of the configured domain name of “<http://granvistaplus.dyndns-ip.com/>”.

Note:

**Please note that the IPCAM will sent back an email to tell the user of its new IP address after it has successfully logged into a network, in case the email settings have been properly configured, and if the camera is connecting to the Internet. The users may also keep track of the new IP addresses from such email feedback.**



## Wireless (GVP-201W)

Wireless network searching and device configuration page

**Wireless** – List of available wireless networks (Access Points); information includes SSID, Mode, Security and Signal Strength.

Wireless Setting: configurations for the camera device for its availability to connect to a wireless network. Clients available in the same network or able to connect to this network can then have an access to the camera device with wireless connection.

The screenshot shows the 'Wireless' configuration page of the GVP-201W camera. The page has a top navigation bar with tabs: Live View, Video, Camera, Event, Schedule, Network (selected), System, and Customize. Below this is a sub-navigation bar with tabs: General, Advanced, SMTP(E-Mail), DDNS, and Wireless (selected). The main content area is divided into two sections: 'Status of Wireless Networks' and 'Wireless Setting'.

**Status of Wireless Networks**

SSID	Mode	Security	Signal strength
Longvast	infrastructure	WEP	-52

**Wireless Setting**

MAC Address: 00:12:0E:BF:6C:9C

IP Address: not-connect-yet

Netmask: not-connect-yet

Gateway: not-connect-yet

Mode: Infrastructure

Operation Mode: Auto

SSID: Default

Security: WPA-PSK

**WPA-PSK Setting**

Encryption: TKIP

Pre-Shared Key: (ASCII format, 8~63 words)

Properly configure the wireless settings according to actual wireless network, click on Save, and the addressed IP will be shown as below. In this example the "192.168.1.6" IP address was decided by DHCP, while in most of the cases it will be convenient for the user to do necessary setup from the router, so that DHCP will give a fixed IP to this specific MAC address, i.e. in this example the MAC address of 00:12:0E:BF:6C:9C.

After the wireless networking has started to work (the wireless IP address has been shown in this screen after clicking the Save button), the user may access the camera via both the wired or wireless IP addresses. The camera may do without the Ethernet cable right after the wireless network has started to work.

Just like the wired network, the user will need to do some appropriate NAT Virtual Server configurations in the broadband router if he wants to access the camera from web externally.

Live View
Video
Camera
Event
Schedule
Network
System
Customize

General
Advanced
SMTP(E-Mail)
DDNS
Wireless

☒ Enabled

**Status of Wireless Networks**

SSID	Mode	Security	Signal strength
AndroidAP	infrastructure	WPA2-PSK	-76
Longvast	infrastructure	WEP	-44

**Wireless Setting**

MAC Address:
00:12:0E:BF:6C:9C

IP Address:
192.168.1.16

Netmask:
255.255.255.0

Gateway:
192.168.1.1

Mode:
Infrastructure

Operation Mode:
Auto

SSID:
Longvast

Security:
WEP

**WEP Setting**

Authentication
Shared Key

Encryption
64 bit

Key Type
ASCII (5 character max)

☒ Key 1

☐ Key 2

☐ Key 3

☐ Key 4

Save
Reconnect

In this case the user may connect to the camera with the wireless address of <http://192.168.1.16:nn/>, such as <http://192.168.1.16:81/>, the “nn” is the HTTP Port number, same as the address of its wired connection.

Please note that signal interference may happen particularly if there are several wireless networks in the installation site’s neighborhood. In case there are other wireless networks found, it is highly suggested not to use the same “channel” which other networks have used.

In case the data flow of wireless connection indicates low data transmission (can be verified from “frame rate” or “bit rate” data on the upper-right corner of the IE screen), it could be because of interference from ambient appliances or other wireless networks, switch to other “channel” in the wireless AP’s setting for optimal channel accordingly.



## 7. System

### Information

Lists of System and Network configurations

Live View	Video	Camera	Event	Schedule	Network	<b>System</b>	Customize
-----------	-------	--------	-------	----------	---------	---------------	-----------

<b>Information</b>	User	Date & Time	Server Maintenance	Log Service
--------------------	------	-------------	--------------------	-------------

<b>System</b>	
Model:	<b>GVP-201W</b>
System up time:	<b>2011-05-04 21:35:47</b>
Firmware version:	<b>2.0.7_440_gvp</b>
MAC Address:	<b>00:04:29:0d:53:01</b>
ActiveX Control version:	<b>1.0.1.140</b>
<b>Wireless</b>	
Status:	<b>No connection</b>
<b>Ethernet</b>	
Status:	<b>Connected</b>
Mode:	<b>STATIC</b>
IP Address:	<b>192.168.1.188</b>
Netmask:	<b>255.255.255.0</b>
Default Gateway:	<b>192.168.1.1</b>
<b>PPPoE</b>	
Status:	<b>No connection</b>
IP Address:	<b>none</b>
<b>DNS Server</b>	
Primary DNS IP address:	<b>168.95.1.1</b>
Secondary DNS IP address:	<b>61.31.1.1</b>
<b>DDNS</b>	
Status:	<b>no</b>

Refresh

## User

Login users for Web access and operations; authentication required. The Check box is for anonymous logging to the live view page.

**Please be sure not to select the anonymous login unless convenience is more important than privacy.**

Logging for further configurations will still require user name and password even if anonymous login has been selected.

**User Setting**

☐ Enable anonymous login (no user name or password required)

**User List**

User Name	User Group
admin	Administrator
binatung	Administrator

**User Setup**

User Name:

Password:

Confirm Password:

User Group: ☒ Administrator ☐ Operator ☐ Viewer

Note:

1. A user name and password must contain at least one character.
2. Max 14 characters are allowed in user names.
3. The first character in user name must be A-Z or a-z.
4. Only A-Z, a-z and 0-9 are allowed in the user name and password.
5. Max eight characters are allowed in the password.
6. The maximum number of users is 20.
7. The 'admin' user is default user and cannot be deleted.

The authorities of different levels of users are as follows:

### **Administrator:**

Allowed to do any adjustments in camera, is the default user that this account can't be deleted.

### **Operator:**

Allowed to view the live video and change Video & Camera settings in Setup Menu only. (Live View, Video & Camera settings in setup menu)

### **Viewer:**

Only permit to watch the live video, can't get into the Setup Menu. (Live View only in setup menu)

## Date & Time

System date/time configuration. Options of synchronizing with PC and NTP server are provided for automatic adjustment in addition to manual setup.

The screenshot shows a web interface for system configuration. At the top, there is a navigation bar with tabs: Live View, Video, Camera, Event, Schedule, Network, System (highlighted in red), and Customize. Below this, there is a sub-navigation bar with tabs: Information, User, Date & Time (highlighted in blue), Server Maintenance, and Log Service. The main content area is titled 'Current Server Time' and 'Set Server Time'. Under 'Current Server Time', there are input fields for Date (2011-05-04) and Time (21:29:52). Under 'Set Server Time', there is a 'Time Mode' section with two radio buttons: 'Synchronize with computer time' (unselected) and 'Synchronize with NTP server' (selected). Below the radio buttons, there are input fields for Date (2011-05-04) and Time (21:30:19). There is also a 'Time zone' section with a dropdown menu showing 'GMT+08 (Beijing, Hong Kong, Shanghai, Taipei)'. Below the dropdown, there is a radio button for 'Set Manually' (unselected). At the bottom of the form, there are input fields for Date (2011-05-04) and Time (21:29:30), with examples below them: (ex: 2008-01-01) and (ex: 01:00:00). A 'Save' button is located at the bottom right of the form.

Current Server Time	
Date:	2011-05-04
Time:	21:29:52

Set Server Time	
Time Mode:	
<input type="radio"/> Synchronize with computer time	
Date:	2011-05-04
Time:	21:30:19
<input checked="" type="radio"/> Synchronize with NTP server	
Time zone:	
GMT+08 (Beijing, Hong Kong, Shanghai, Taipei) ▼	
<input type="radio"/> Set Manually	
Date:	2011-05-04
Time:	21:29:30
(ex: 2008-01-01)	
(ex: 01:00:00)	

Save

## Server Maintenance

This page provides tool for system maintenance; Reboot and Load default settings, as well as functionalities of launching upgrade process, backup/restore user settings and language defines.

Live View
Video
Camera
Event
Schedule
Network
System
Customize

Information
User
Date & Time
Server Maintenance
Log Service

Maintain Server

Reboot
Load default

Firmware Upgrade

Model:GVP-201W
Firmware Version:2.0.7\_440\_gvp
MAC Address:00:04:29:0d:53:01
ActiveX Version:1.0.1.140
Specify the firmware to upgrade:

Browse...
Upgrade

Backup

Save all parameters and user-defined scripts to a backup file.
Backup

Upload Setting

Use a saved backup file to return the unit to a previous configuration.
Specify the backup file to use:

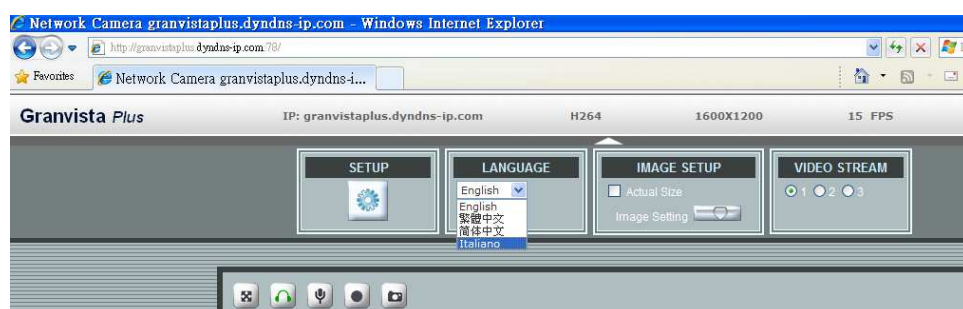
Browse...
Upload

Add Language

Choose language: 日本語
Get a language file from [/lang/en/lang.js](#)
Select language file to upload:

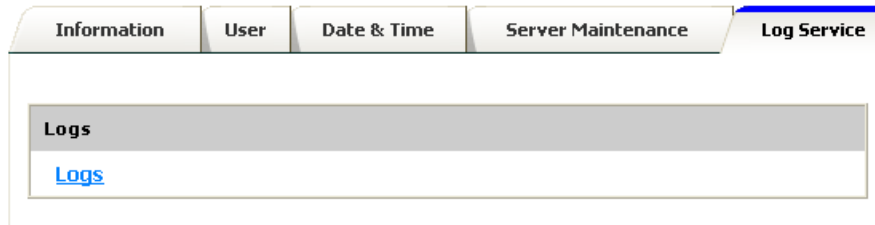
Browse...
Upload Language

If you like to add customized interfaces with other languages, please refer to the “How to add a new language into the user interface V.1.0.ppt” file in the CD for more details.



## Log Service

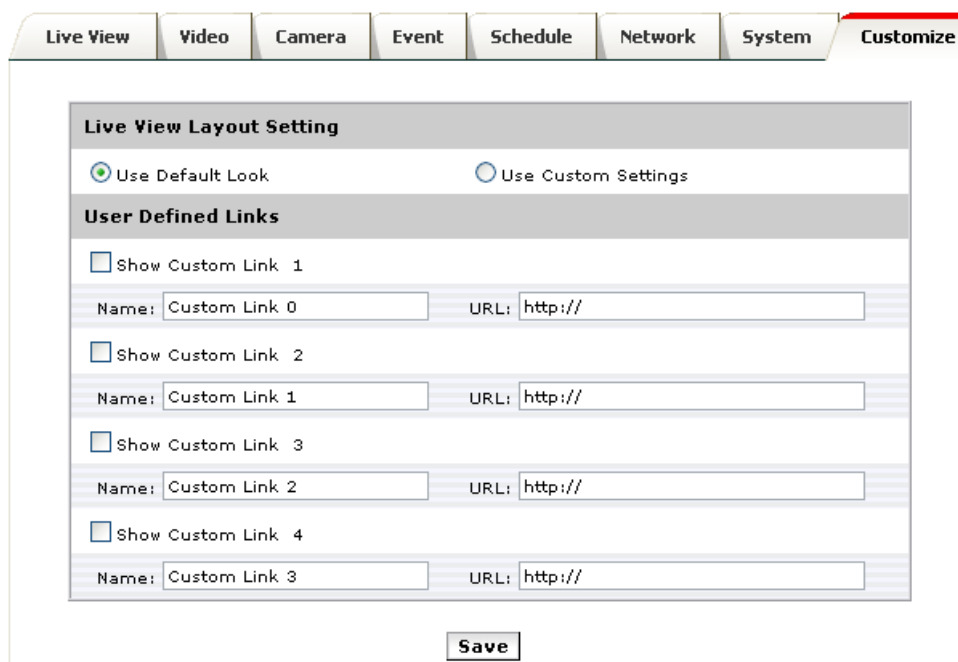
Most system operations and / or process will be kept in a log system. The link provides the review of these records.



The screenshot shows a web interface with five tabs: Information, User, Date & Time, Server Maintenance, and Log Service. The Log Service tab is selected and highlighted with a blue border. Below the tabs, there is a section titled "Logs" with a blue link labeled "Logs" underneath it.

## 8. Customize

This page provides the function of adjusting the look of live view page. There are two types of layout settings; use default look or use custom settings.



The screenshot shows a web interface with seven tabs: Live View, Video, Camera, Event, Schedule, Network, System, and Customize. The Customize tab is selected and highlighted with a red border. Below the tabs, there is a section titled "Live View Layout Setting" with two radio buttons: "Use Default Look" (selected) and "Use Custom Settings". Below this is a section titled "User Defined Links" with four rows. Each row has a checkbox labeled "Show Custom Link" followed by a "Name" field and a "URL" field. The names are "Custom Link 0", "Custom Link 1", "Custom Link 2", and "Custom Link 3". The URLs are all "http://". At the bottom of the section is a "Save" button.

**Use Default Look:** the default layout of live/configuration pages

**Use Defined Links:** Web link(s) will be presented on the live page when enabled. It can be a link to another Network Camera for instance, or other preferred web link.

**Use Custom Settings:** The modifications allowed are changes of Background / Text Color, Background picture, Title, Description, Logo and etc.

**Live View Layout Setting**

☐ Use Default Look ☒ Use Custom Settings

**User Defined Links**

☐ Show Custom Link 1  
Name: Custom Link 0 URL: http://

☐ Show Custom Link 2  
Name: Custom Link 1 URL: http://

☐ Show Custom Link 3  
Name: Custom Link 2 URL: http://

☐ Show Custom Link 4  
Name: Custom Link 3 URL: http://

**Custom Settings**

Modify the Default Look:

Background Color: ☒ Default ☐ Own: White

Text Color: ☒ Default ☐ Own: Black

Background picture: ☒ None ☐ External: http://

Title: ☒ None ☐ Default ☐ Own: Title

Description: ☒ None ☐ Default ☐ Own: Description

Logo Link: ☒ None ☐ Default ☐ Own: http://

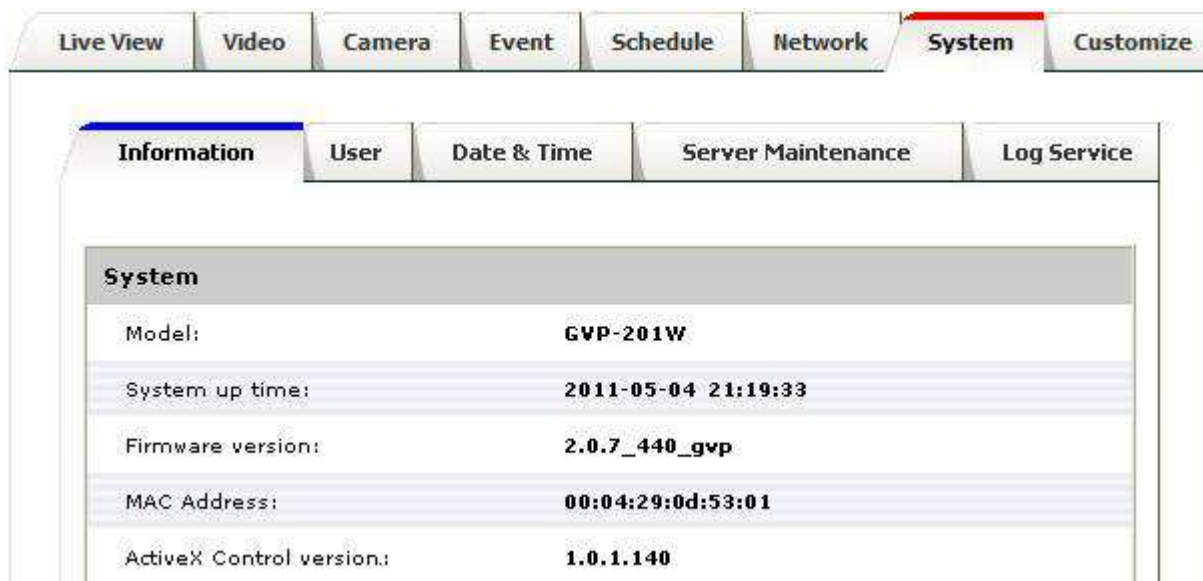
Logo: ☐ None ☒ Default ☐ External: http:// ☐ Own

Select image file to upload:

## 9. FAQ

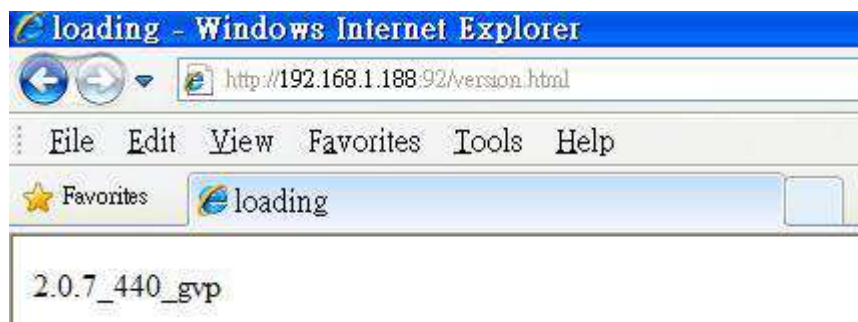
### Check firmware version

The version code can be found in Setup -> System -> Information, or simply type “version.html” after the URL address, e.g. <http://192.168.1.188/version.html>. Firmware version indicates the functionalities' updates or availability in the camera system. Therefore, in the first step of troubleshooting and then reporting, it helps to locate the found issues. Newer version firmware may have corrected the current bugs.



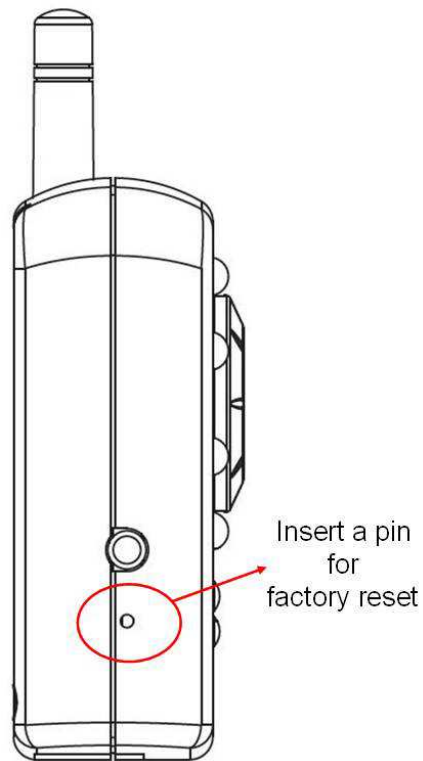
The screenshot shows a web interface with a top navigation bar containing tabs: Live View, Video, Camera, Event, Schedule, Network, System (highlighted with a red underline), and Customize. Below this is a sub-navigation bar with tabs: Information (highlighted with a blue underline), User, Date & Time, Server Maintenance, and Log Service. The main content area is titled 'System' and displays the following information:

Model:	GVP-201W
System up time:	2011-05-04 21:19:33
Firmware version:	2.0.7_440_gvp
MAC Address:	00:04:29:0d:53:01
ActiveX Control version:	1.0.1.140





## Restore to Factory Default



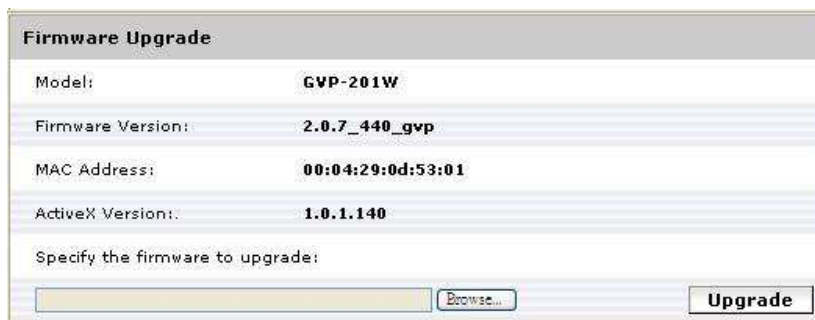
To restore factory default, please follow the steps:

1. Unplug the power jack to turn off the power of the camera.
2. Insert a pin into the reset hole as circled with red in the below figures. Sense a button and keep it pressed.
3. Plug in the power jack to turn on the device, in about few seconds the status LED will be quick flashing
4. Release the button (remove the pin from the reset hole). The camera should now be back to factory default.

## Upgrade device firmware

Firmware upgrade process should be done via the web configuration; **Setup -> Server Maintenance -> Firmware Upgrade**. Before the process, read the instructions and release notes coming with each new released version. For the steps,

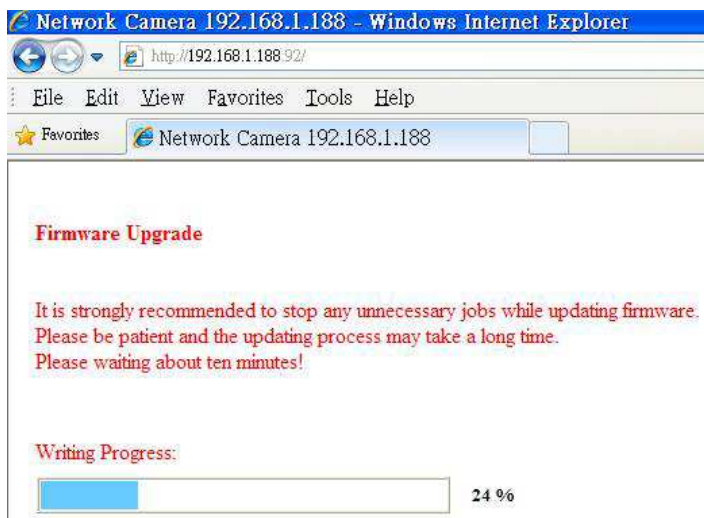
1. Check and retrieve the latest firmware bin file.
2. Disconnect all other clients (e.g. streaming requests) to the device.
3. Stop the local (schedule) recording if it was enabled.
4. Go to the Firmware Upgrade page, browse and locate the downloaded firmware bin file, then click on "Upgrade" button.



The screenshot shows a web form titled "Firmware Upgrade". It contains the following fields and values:

Model:	GVP-201W
Firmware Version:	2.0.7_440_gvp
MAC Address:	00:04:29:0d:53:01
ActiveX Version:	1.0.1.140
Specify the firmware to upgrade:	<input type="text"/> <input type="button" value="Browse..."/>
<input type="button" value="Upgrade"/>	

5. The upgrade should finish in minutes, depending on file transferring status. The web will then be directed to the system writing progress. Overall upgrading process takes about 5~10 minutes. In this period, **DO NOT DISCONNECT the power and Ethernet connection** while the upgrade is in progress, otherwise software of the unit can be damaged.



The screenshot shows a Windows Internet Explorer window with the address bar displaying "http://192.168.1.188/92/". The page title is "Network Camera 192.168.1.188". The main content area is titled "Firmware Upgrade" and contains the following text:

It is strongly recommended to stop any unnecessary jobs while updating firmware.  
Please be patient and the updating process may take a long time.  
Please waiting about ten minutes!

Writing Progress:

24 %

6. The power LED (orange one) will be quick/slow flashing during the upgrading process. When it becomes again steady on, camera is ready to be accessed. Check the firmware version. If somehow system is not upgraded, redo above steps. In this case, restore factory default process may be required.

## Video Streams Specification

### The availabilities

1. Each stream can be switched to either H.264 or MJPEG mode.
2. Each steam can be configured to either CBR or VBR mode.
3. Stream1 (main stream) is available from all the resolutions listed.
4. The maximum resolution setting for Stream2 is 640x480.
5. Stream3 is fixed in 640x480.
6. The maximum frame rate for transferring 1600x1200 is 15fps. Others can reach up to 30fps.

	STREAM1	STREAM2	STREAM3 3G mobile phone only
Encoding Mode			
<i>H.264 / MJPEG</i>	V	V	
Transferring Mode			
<i>CBR / VBR</i>	V	V	
Resolution @ Max. FPS			
<i>1600x1200@15</i>	V		
<i>1280x720@30</i>	V		
<i>800x600@30</i>	V		
<i>640x480@30</i>	V	V	640x480 @1fps

### Dependency

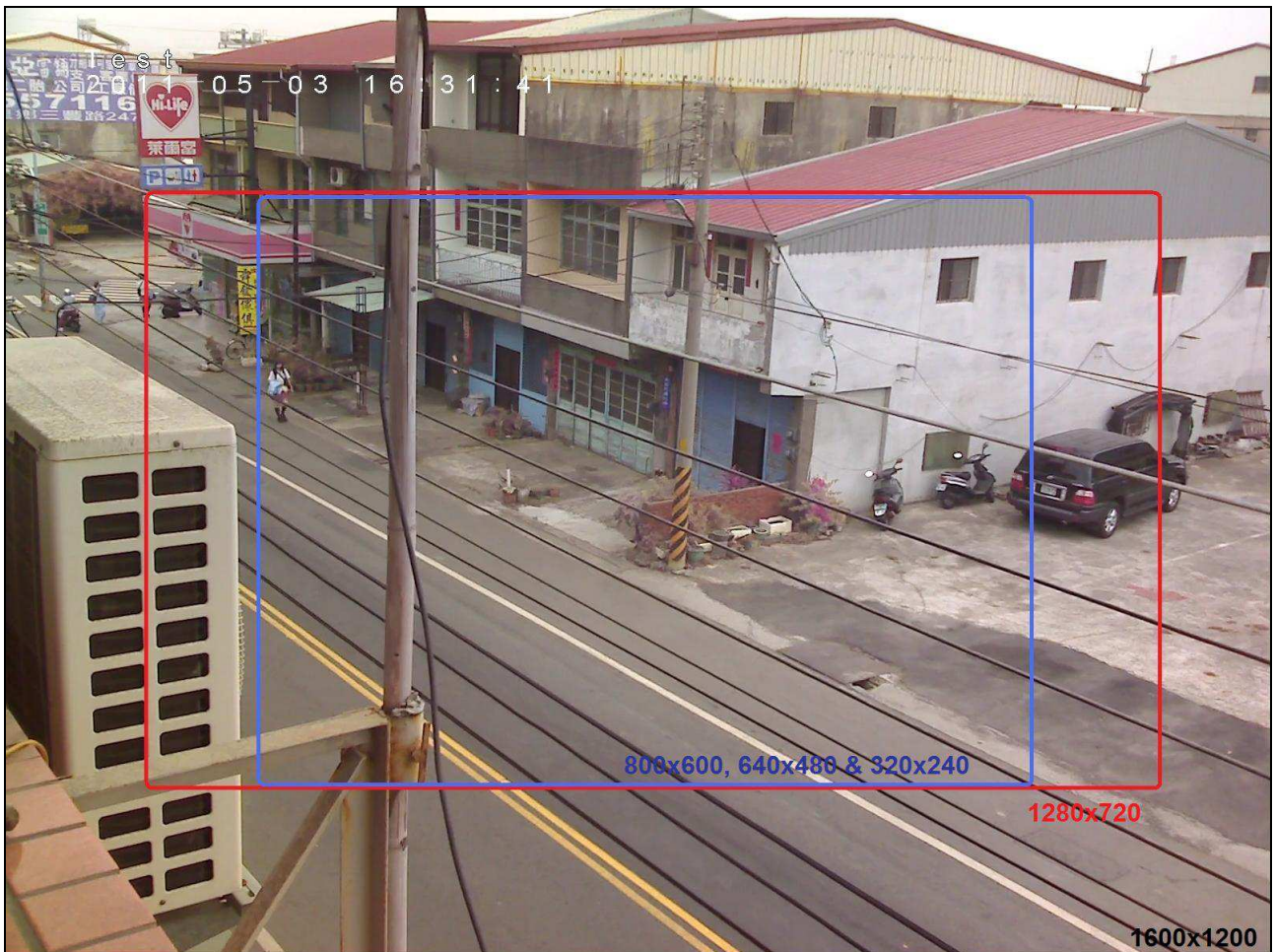
1. **Max. FPS dependency:** when **Stream1** is set to **1600x1200**, the maximum frame rate is **15fps**. Accordingly, both **Stream2** and **Stream3** can be configured with the frame rate from 5 to 15 fps.
2. **Resolution dependency:** The maximum resolution of **Stream2** is depending on the resolution setting of **Stream1**. When Stream1 is set to 320x240, Stream 2 is limited in 320x240.
3. **Frame rate independent:** Frame rate setting for each stream can be independent, for instance, **Stream2** can be set **15fps** while **Stream1** (1280x720 or below) is set to **5fps**.

STREAM1	STREAM2		STREAM3 3G mobile phone
	640x480	320x240	640x480 (fixed)
<i>1600x1200, 5~15 fps</i>	5~15 fps		
<i>1280x720, 5~30 fps</i>	5~30 fps		1 fps
<i>800x600, 5~30 fps</i>			
<i>640x480, 5~30 fps</i>			
<i>320x240, 5~30 fps</i>		5~30 fps	

Note the resolution setting must follow the sequence: Stream1  $\geq$  Stream2  $\geq$  Stream3.

## The Angle of View at different resolutions

The setting of Stream determines the angle of view, therefore the range of image view. The picture below presents the **3 ranges of view**, 1600x1200, 1280x720 & 800x600/640x460/320x240.



Actual Views with different resolutions

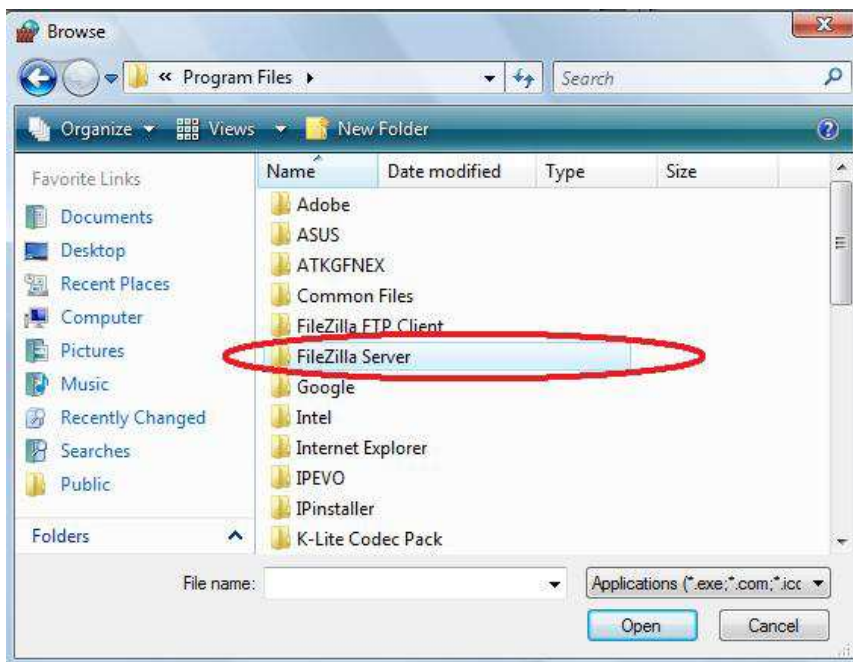
# Appendix I: An example of how to set up users' own FTP servers

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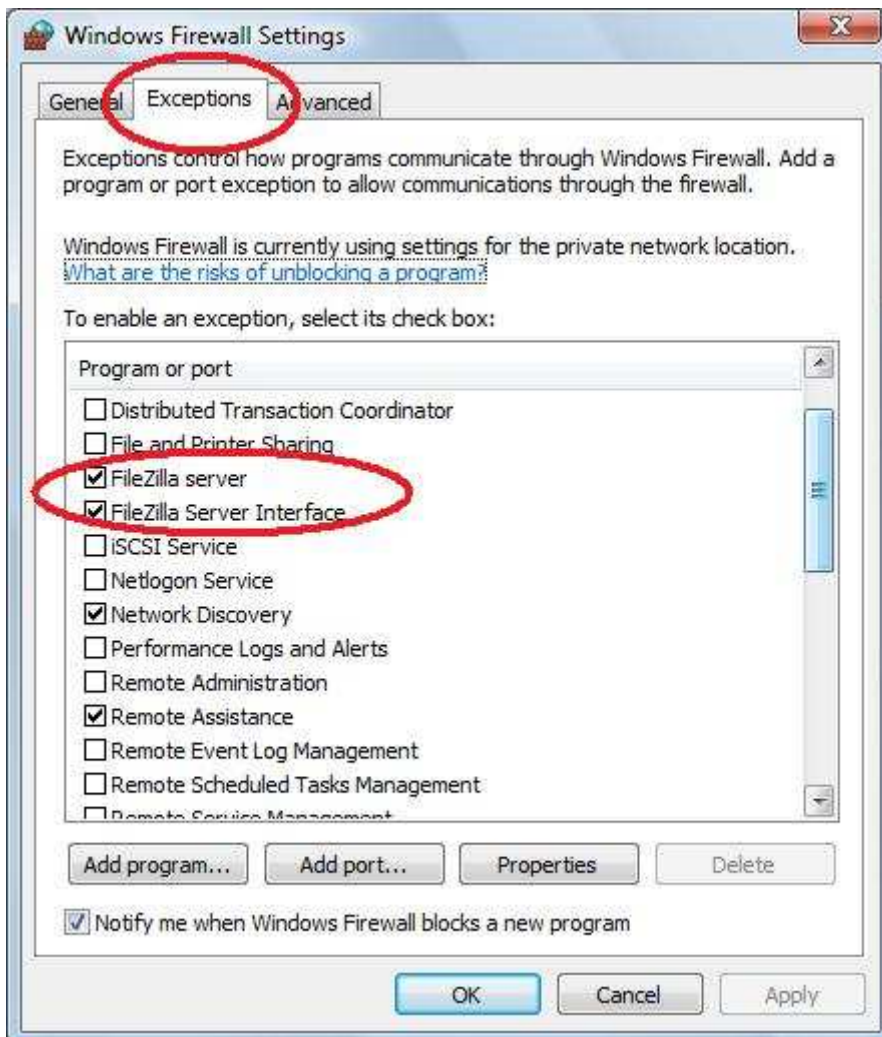
FTP is quite a convenient application. The users may easily set up their own FTP servers.

Following is an example of using a shareware named FileZilla. Please note that this FileZilla software's copyright belongs to Tim Kosse, <http://filezilla-project.org/>, Longvast International Co., Ltd. has no business relationship with them that users should obey the related copyright laws about using this software.

1. Download the FTP server program from <http://filezilla-project.org/download.php?type=server>. If the users also like to download the FTP client software, they may refer to <http://filezilla-project.org/> for more information.
2. Install the FTP server program, and start the program.
3. The Firewall of Windows or anti-virus software will usually try to stop such FTP server application. Please make these two programs exceptions to the firewalls accordingly.



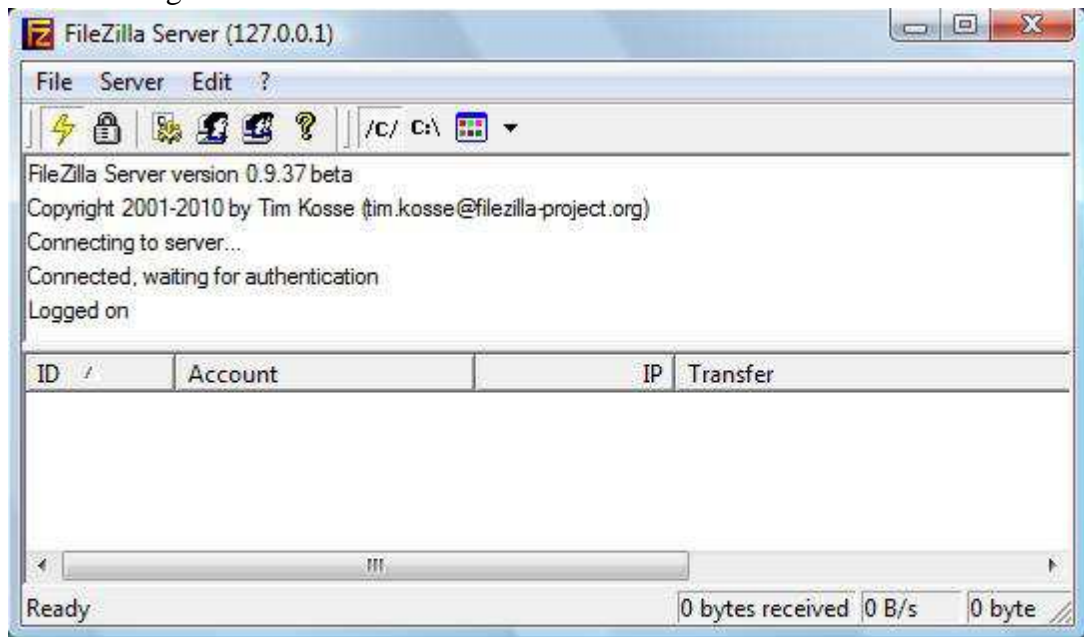




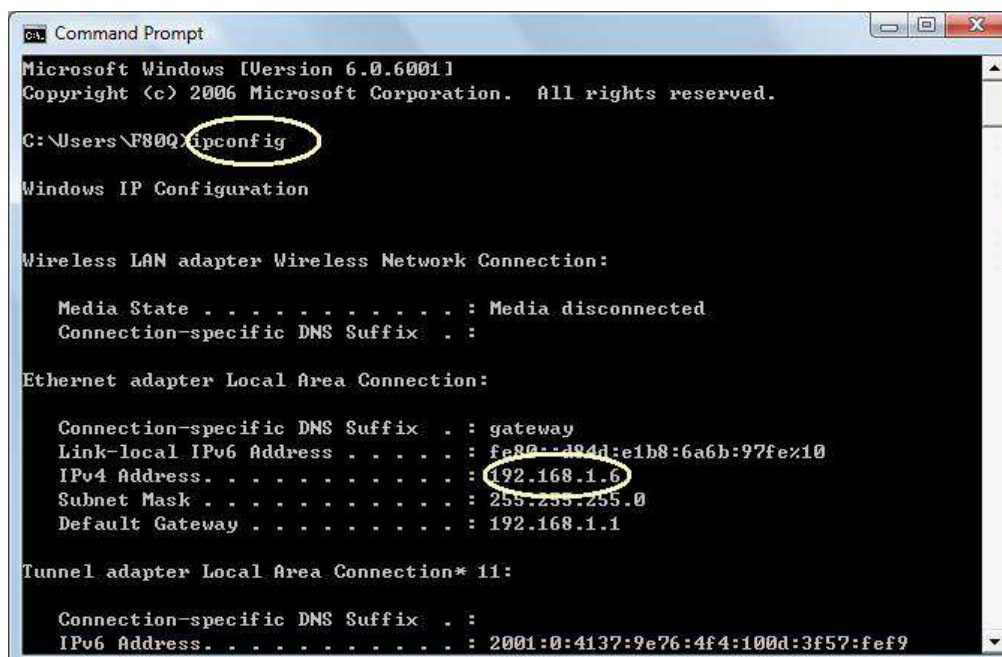
4. Start the FTP server by clicking on the OK button. Do not change any of the original settings.



5. The users should see following screen after clicking OK button. It indicates that this FTP server is running now.



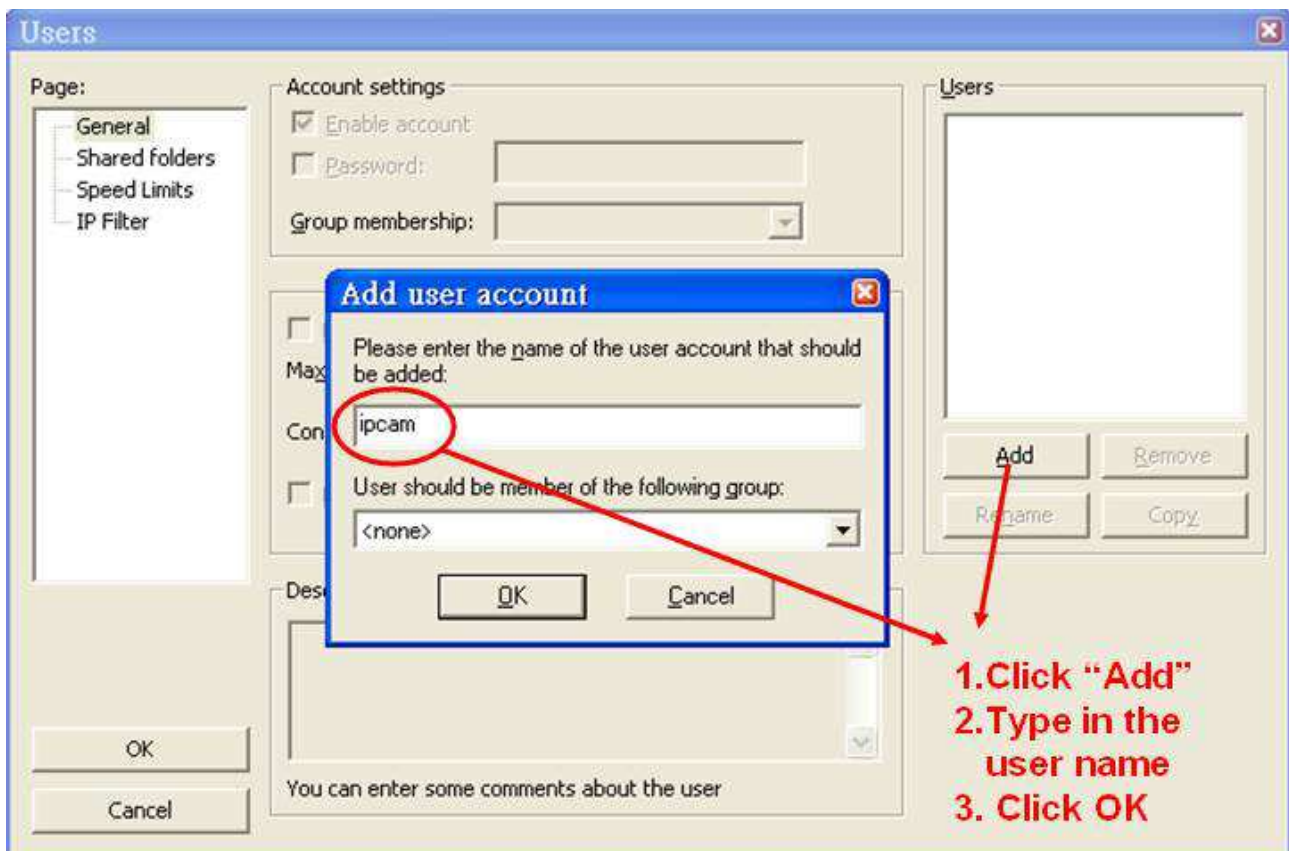
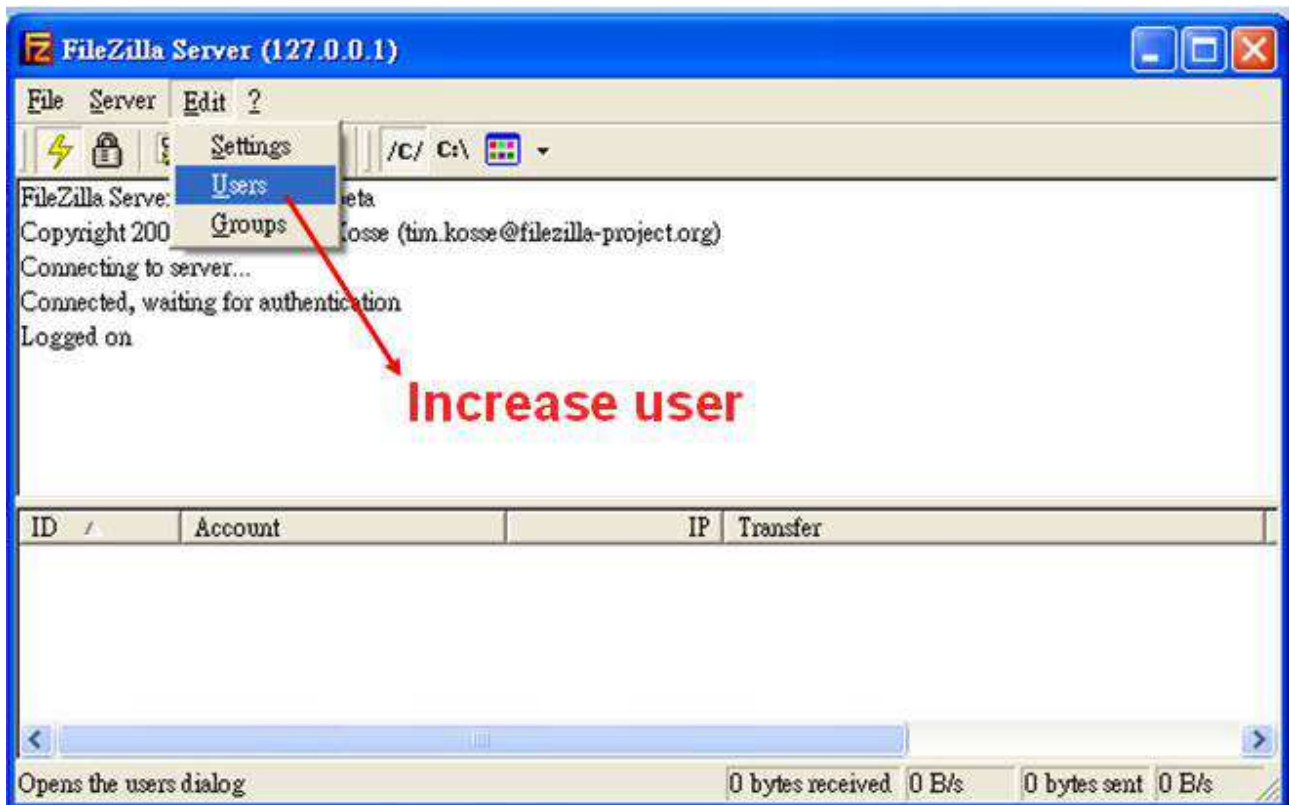
6. Type in “ipconfig” command from the Windows’s command screen.

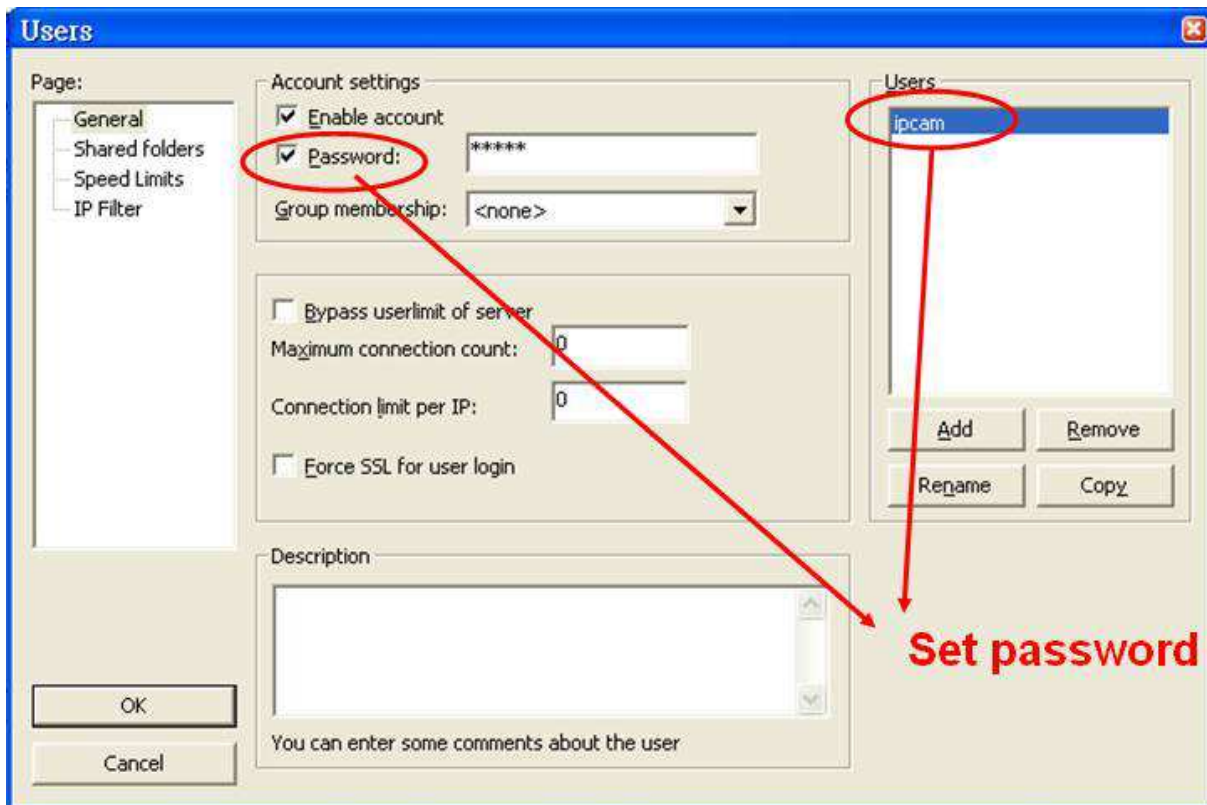


In this command screen, the IP address indicates that the address of PC when FTP server running is of “192.168.1.6”.

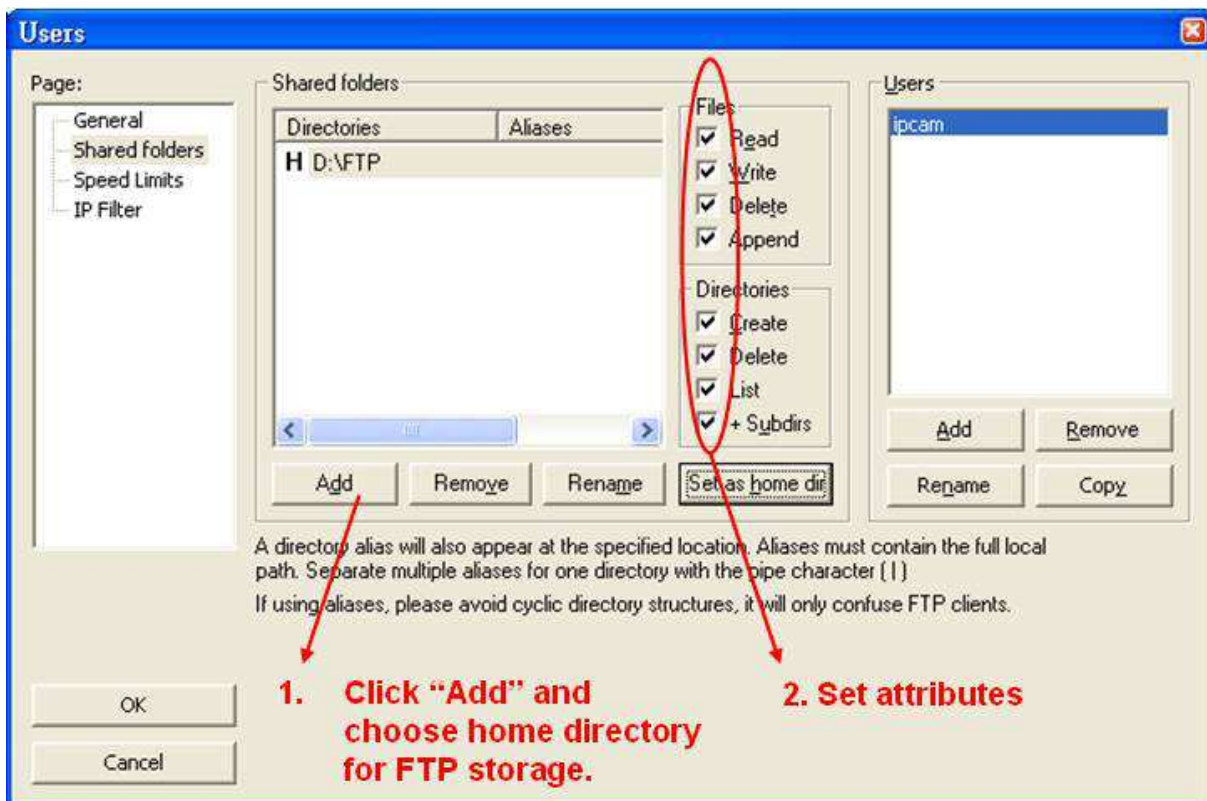


7. Configure the user names and passwords of the users who are allowed to login into this server.

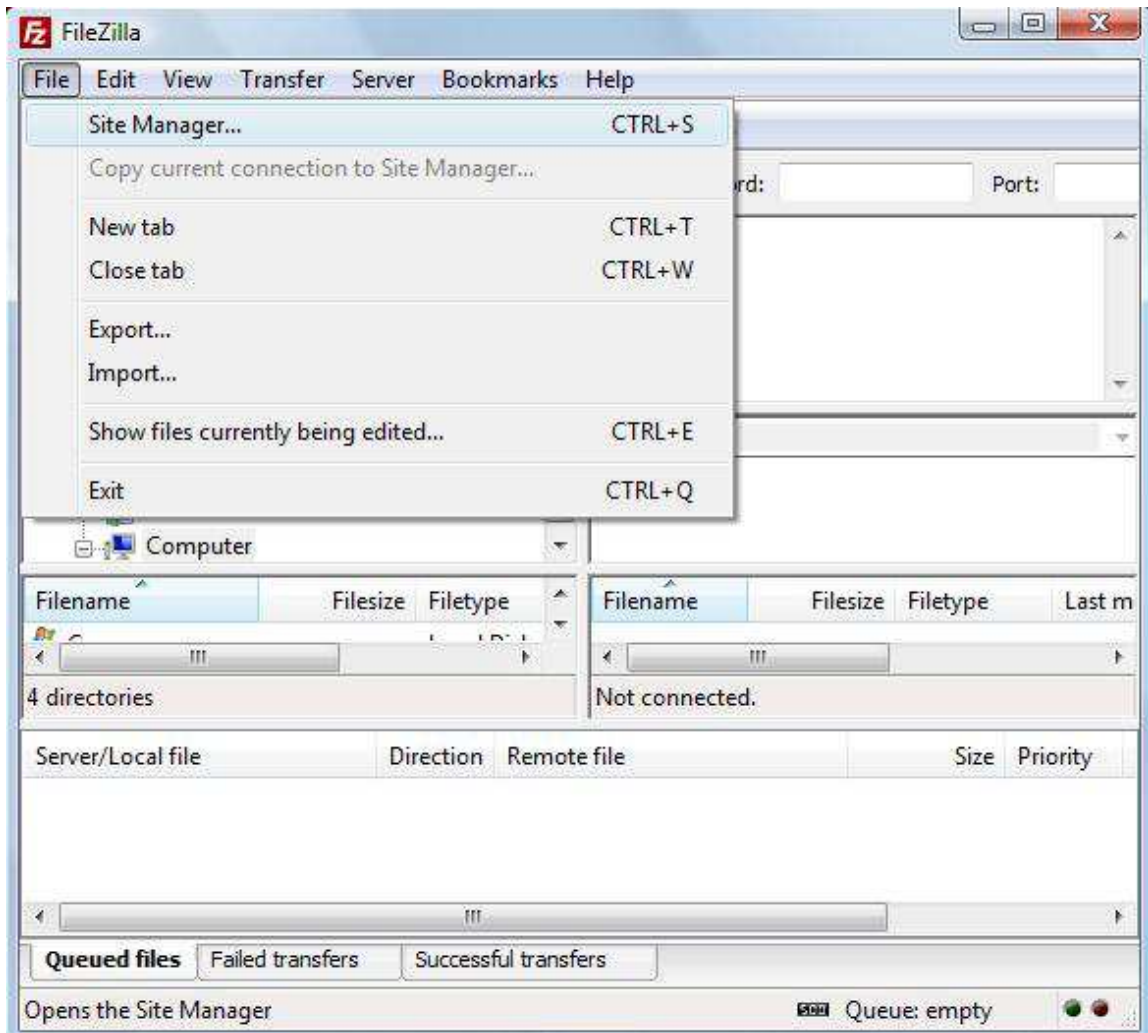


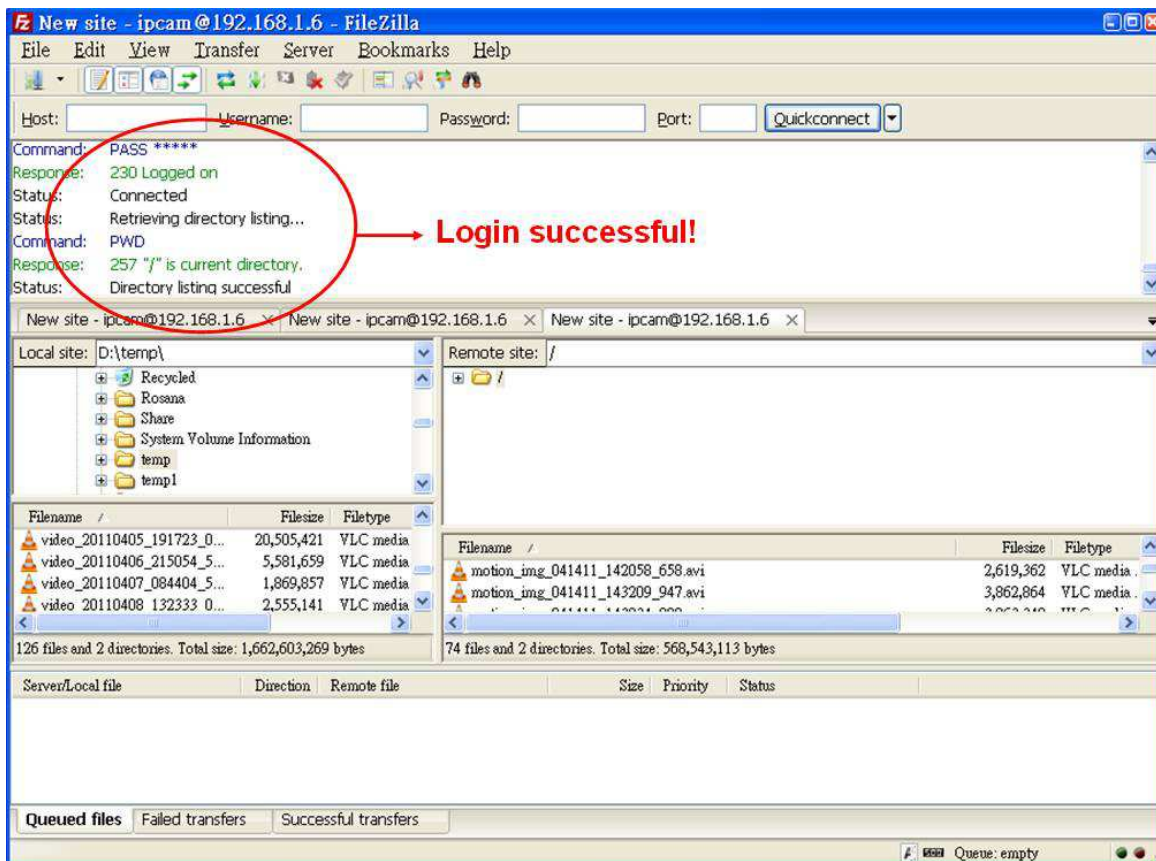
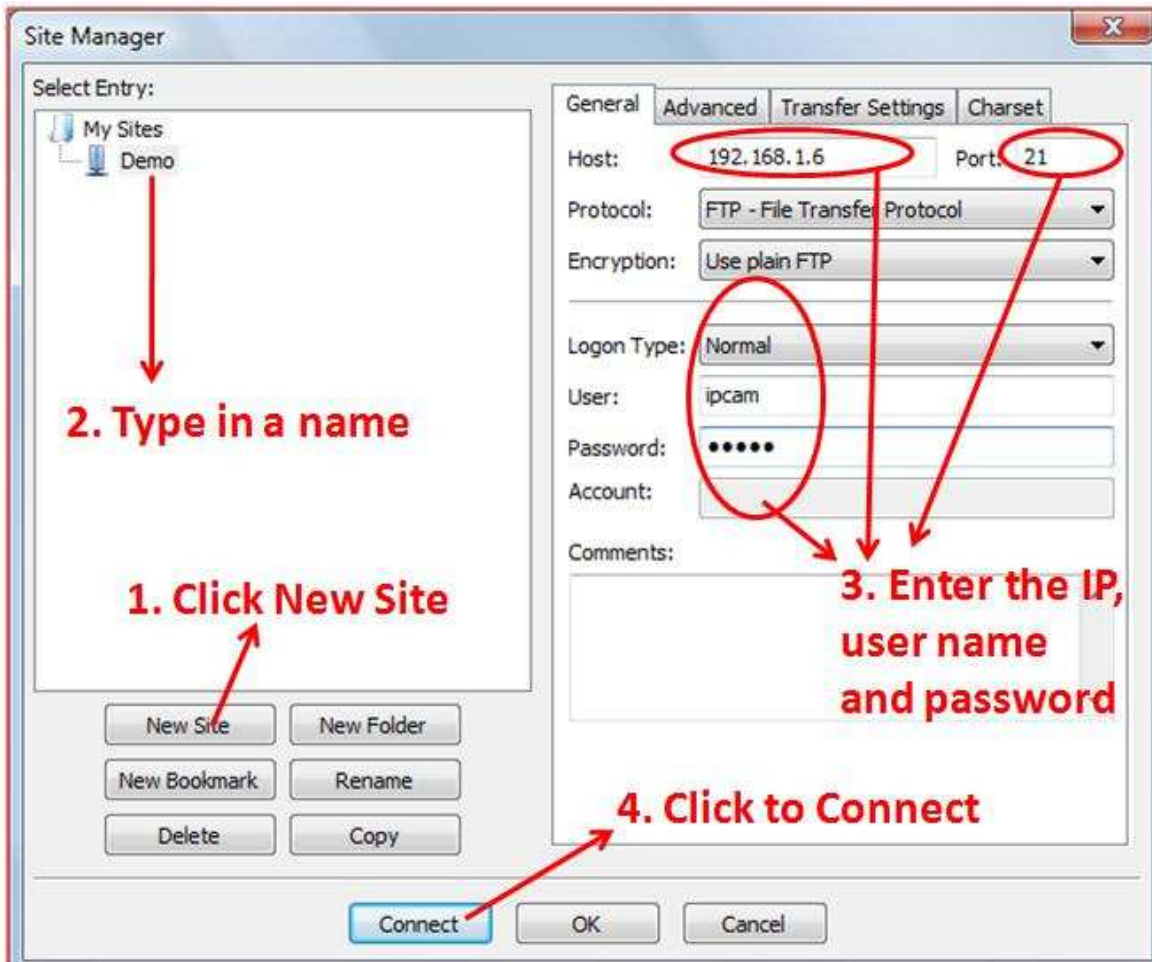


8. Set the default directory of each individual user.



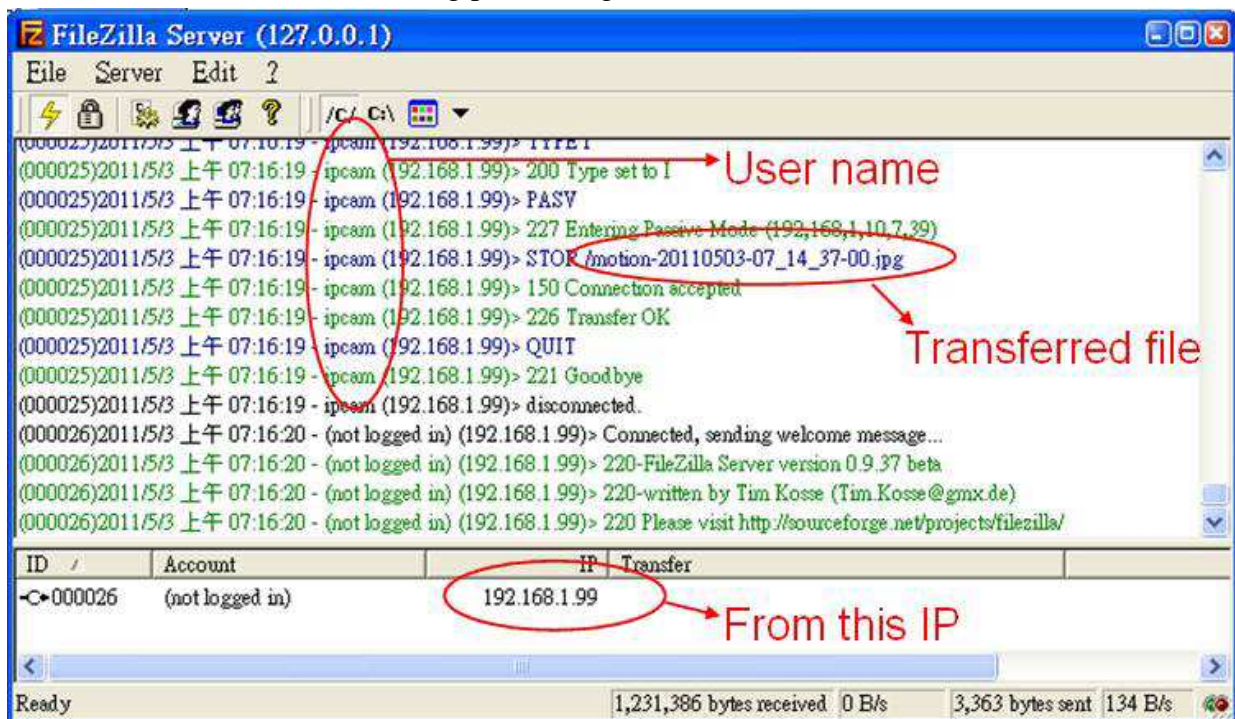
9. Now the FTP server should be ready to go. The users may double-check to see if everything is alright by trying to login by using any FTP client programs with the user IDs and passwords pre-configured. In the following example we use similar Filezilla FTP Client software with the user ID of “ipcam” to login.







10. Now the FTP server is ready to store the event-triggered photo images from the network cameras. Following is a screen which the users may see on the FTP server software when a network camera is transferring photo image files to the FTP server.



11. Please note that this FTP server may also be accessed through Internet externally. Following screen shows an example of how the user may configure his broadband router to make this FTP server accessible from web externally. In case the fixed web IP of this connection is 219.86.240.235, and then the users from outside may access this FTP server from the web address of [FTP://219.86.240.235:21](ftp://219.86.240.235:21) now. In other words the user can access this FTP server by the IPs of both 192.168.1.6 or 219.86.240.234 from near end after the NAT Virtual Server is properly routed.

**Virtual Server**

Setting up Virtual Servers allows remote users to access services such as Web or FTP on the LAN via public IP Addresses.

No.	Private IP	Private Port	Type	Public Port	Comment	Enabled
1.	192.168.1.99	91	Both	91	GVP-201	<input checked="" type="checkbox"/>
2.	192.168.1.99	556	Both	556	GVP-201	<input checked="" type="checkbox"/>
3.	192.168.1.188	92	Both	92	GVP-201W	<input checked="" type="checkbox"/>
4.	192.168.1.188	557	Both	557	GVP-201W	<input checked="" type="checkbox"/>
5.	192.168.1.20	80	Both	80	GVP-NVR06	<input checked="" type="checkbox"/>
6.	192.168.1.6	21	Both	21	FTP server	<input checked="" type="checkbox"/>
7.	192.168.1.		TCP			<input type="checkbox"/>
8.	192.168.1.		TCP			<input type="checkbox"/>

In terms of how to get your fixed web IP address, please refer to your Internet Service Provider for more details. Usually PPPoE is the most common protocol used for getting fixed IP, and following image shows you the setting screen of such PPPoE

**ASUS RX3081**

Product Name: ASUS RX3081

**System Status**

This page displays the LAN/WAN connection status, firmware/hardware version, and number of connected clients in your network.

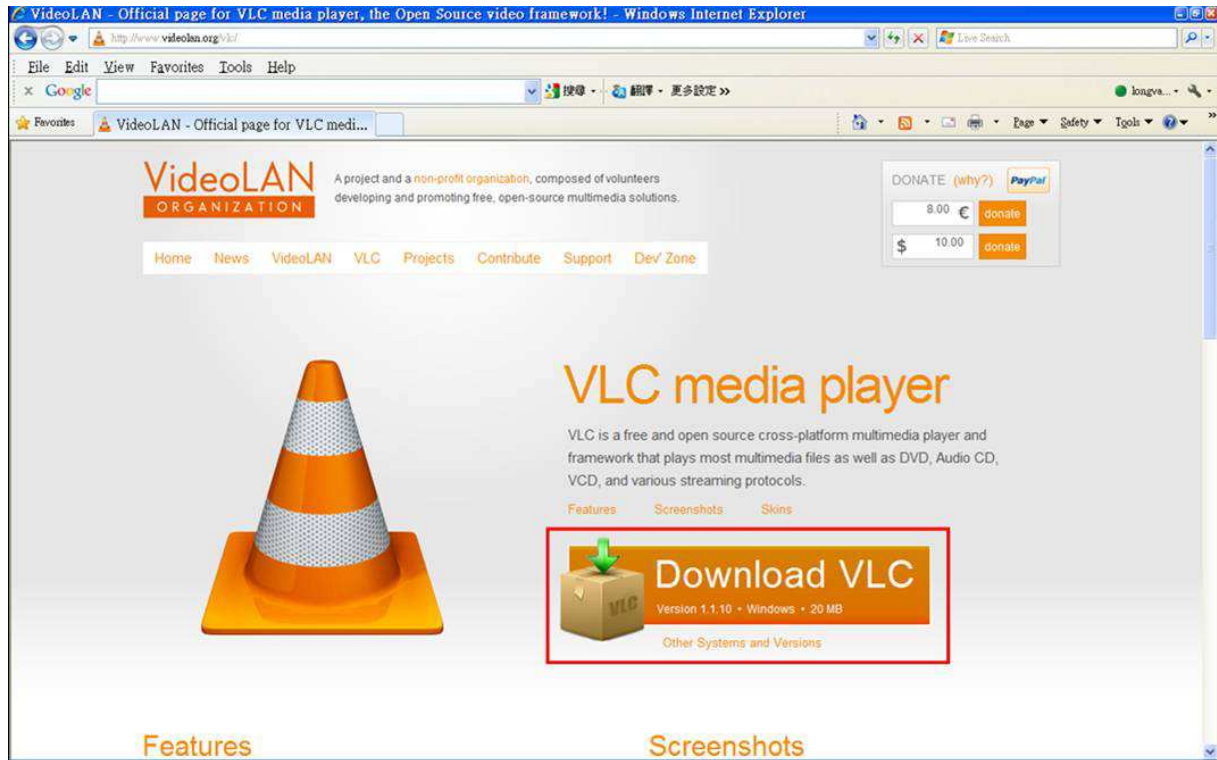
WAN	
Cable/DSL	Connected
WAN IP	219.86.240.234
Subnet Mask	255.255.255.0
Gateway	211.78.222.137
Primary DNS	61.31.233.1
Secondary DNS	61.31.1.1
Connection Type	PPPoE
Connection Time	03:10:38
<input type="button" value="Connect"/>	<input type="button" value="Disconnect"/>

LAN	
IP Address	192.168.1.1
Subnet Mask	255.255.255.0
DHCP Server	Enabled
NAT	Enabled
Firewall	Enabled



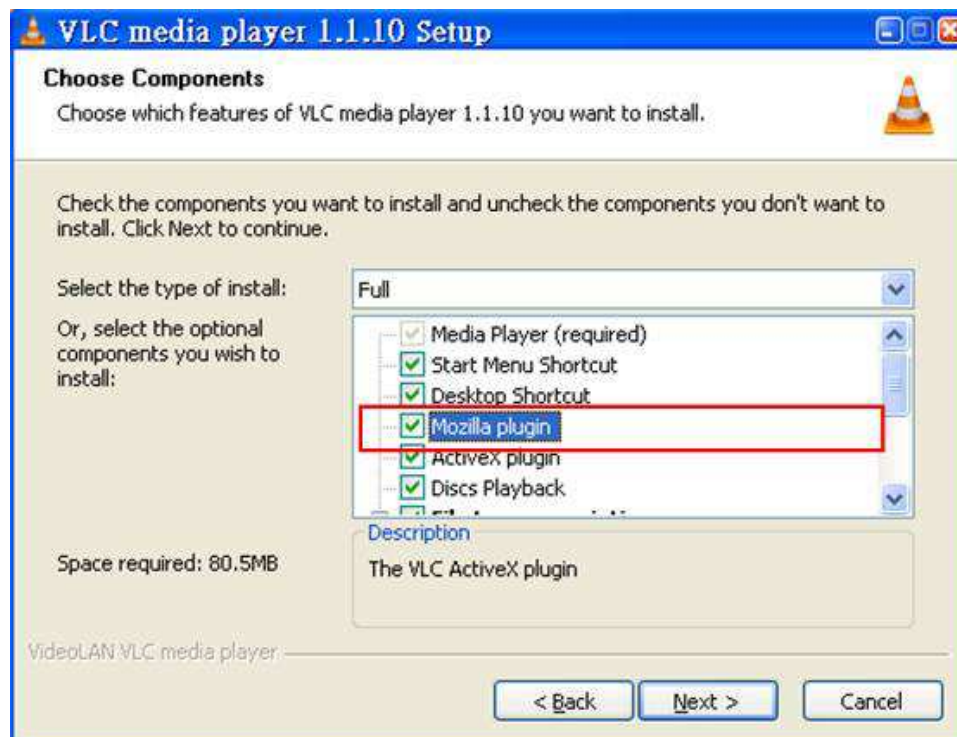
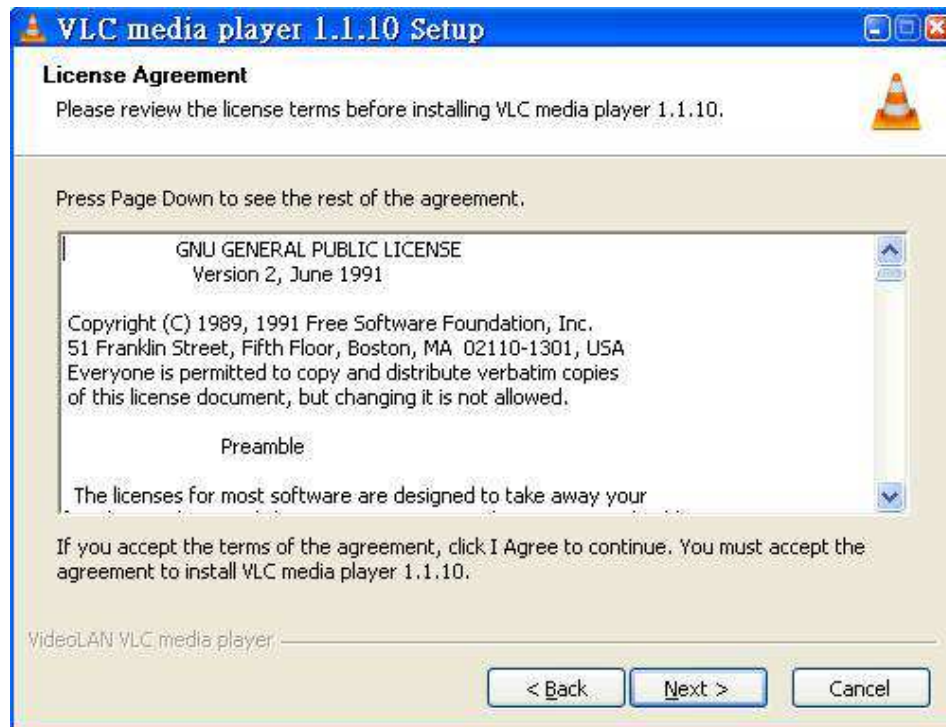
## Appendix II: How to install the VLC program

1. Go to <http://www.videolan.org/vlc/> and download VLC program. In this page there is a donation field, and it is all up to the users whether they want to donate to this VideoLan non-profit Organization. If the users do not want to make donation immediately, just ignore and click on the “Download VLC” icon to proceed with the download.



Note: this VLC shareware is proprietary of the VideoLAN non-profit Organization

## 2. Install VLC 1.1.10 step by step

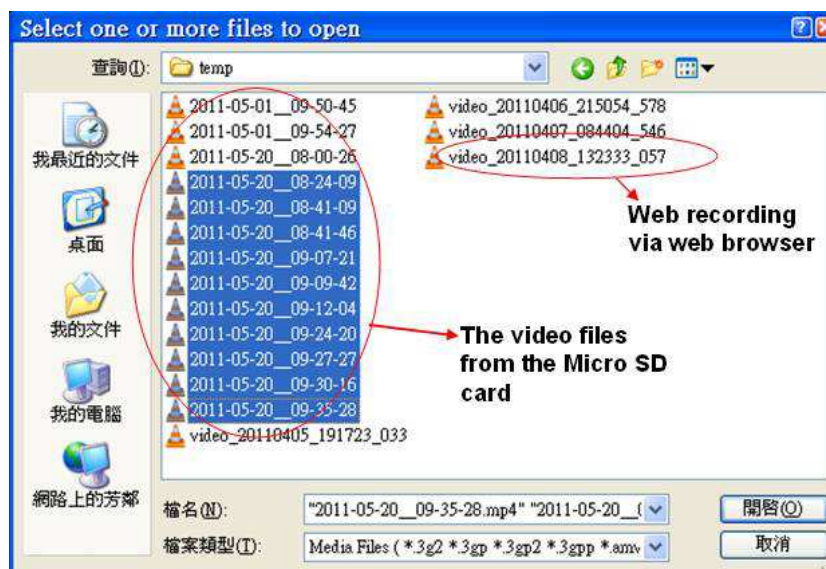


Be sure that the “Mozilla plugin” is selected if the users need to use Firefox as web browser too, in addition to Microsoft Internet Explorer. This plugin is used for audio function.

## Appendix III: How to replay the recorded video clips with VLC program

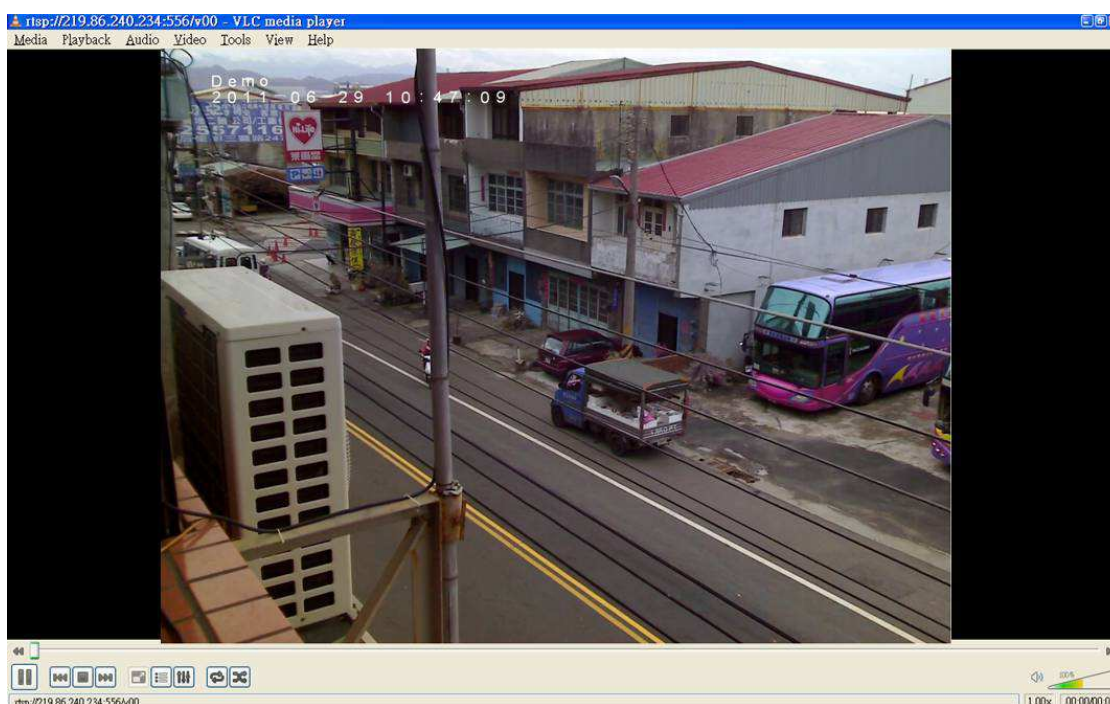
The following image is an example screen showing the video clip files which a user has collected inside a PC folder named “temp”.

There are two types of files in this example. The files with the file format of “YYYY-MM-DD\_TT-TT-TT” format are recorded in the Micro SD card, and the ones in the format of “video\_YYYYMMDD\_TTTTTT\_nnn” format are recorded by the web browser’s Web Recording function.



Select whichever file the user want to replay. If the user has selected more than one file then the VLC will replay sequentially.

The multiple-selection is very useful, because the users may need to replay video data for a long period of time either from the SD card or Web Recording function.



Note: the users may right-click and choose “full screen” mode for full-screen display.

## **Appendix IV: Commands for system integrations**

- **<http://N.N.N.N/tmp/snap.jpg>**

The [http://IPcam\\_IP/tmp/snap.jpg](http://IPcam_IP/tmp/snap.jpg) command is to retrieve for the 640x480 image which is generated by the cameras at the speed of one image per second. The quality of such image should look good to you too, although it is only VGA.

- **<http://N.N.N.N/cgi-bin/admin/snapshot.cgi>**

You may use "[http://IPcam\\_IP/cgi-bin/admin/snapshot.cgi](http://IPcam_IP/cgi-bin/admin/snapshot.cgi)" CGI command to get 1600x1200 images. We recommend not to send this command to camera too frequently, because such CGI command will ask the camera to send out immediate 2megapixel image, while too frequent CGI commands would definitely make the camera unstable, because frequent CGI commands like that have not been expected in its existing codes.

Both kinds of commands mentioned above are different. The [http://IPcam\\_IP/tmp/snap.jpg](http://IPcam_IP/tmp/snap.jpg) will not cause too much loading to the cameras, because such 1fps VGA image has already been there already, but the "[http://IPcam\\_IP/cgi-bin/admin/snapshot.cgi](http://IPcam_IP/cgi-bin/admin/snapshot.cgi)" CGI command will ask camera to do a lots of works that it will casue heavier loads to the cameras.